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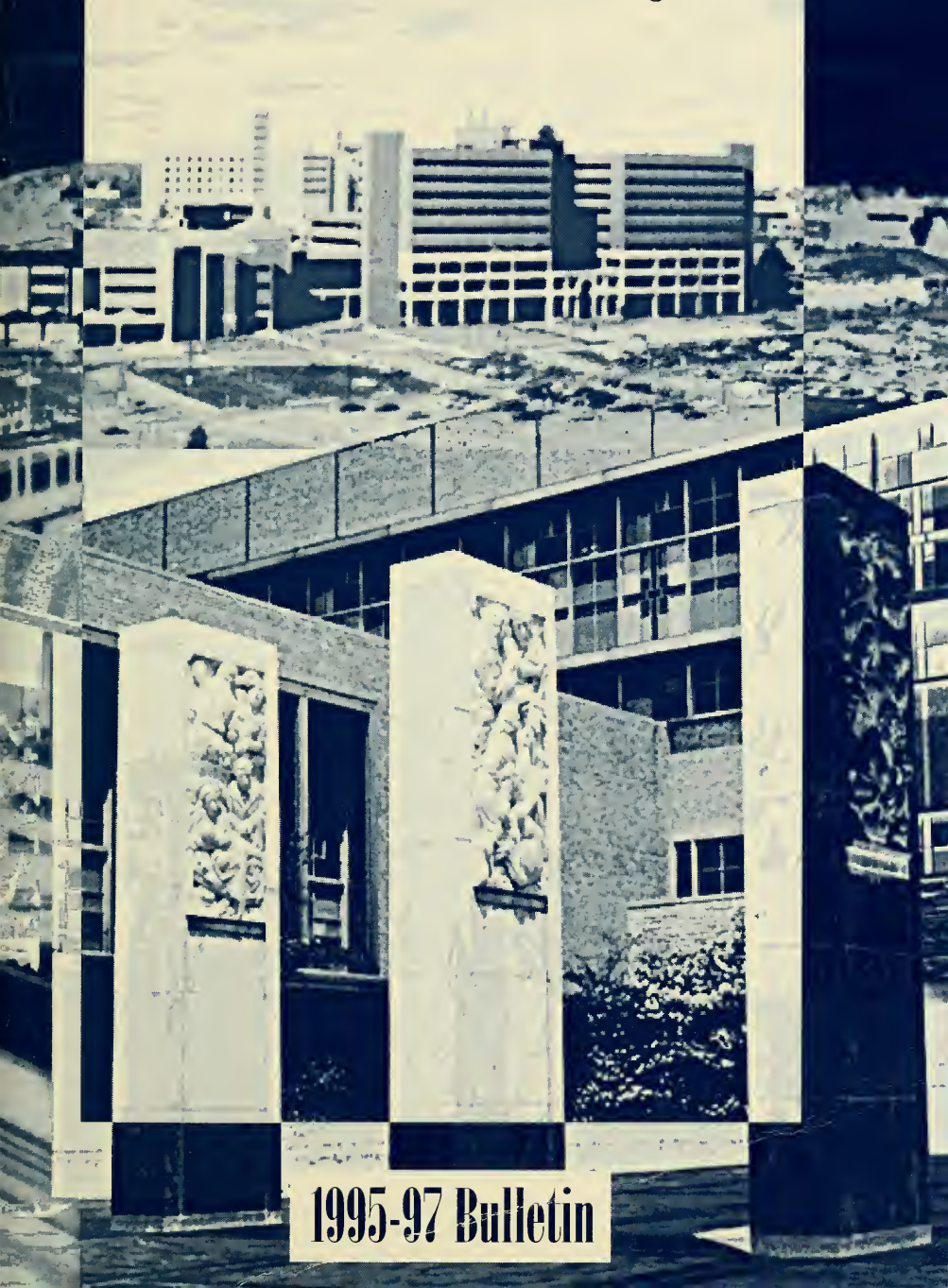
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West Virginia University

Robert C. Byrd Health Sciences Center Catalog



1995-97 Bulletin

ROBERT C. Byrd
Health Sciences Center
of West Virginia University
1995-97 Catalog

School of Dentistry
School of Medicine
School of Nursing
School of Pharmacy



The 1995-97 West Virginia University Health Sciences Center Catalog is a general source of information about course offerings, academic programs and requirements, expenses, rules, and policies. The courses, requirements, and regulations contained herein are subject to continuing review and change by the University of West Virginia Board of Trustees, University administrators, and the faculties of the colleges and schools to meet the goals and objectives of the University. The University, therefore, reserves the right to change, delete, supplement, or otherwise amend at any time, the information, course offerings, requirements, rules, and policies contained herein without prior notice.

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West Virginia University Academic Calendar 1995-96

The University calendar includes the academic year, which is composed of two semesters of approximately seventeen weeks each, and two summer sessions of six weeks each.

Wednesday, Thursday, Friday, August 16-18..... New student orientation
Friday, August 18 General registration
Monday, August 21 First day of classes
Monday, August 21 Late registration fee in effect for all students
Friday, August 25 Last day to register, add new courses,
Make section changes, change pass/fail and audit
Monday, September 4 Labor Day recess
Monday, September 25 Rosh Hashanah (day of special concern)
Wednesday, October 4 Yom Kippur (day of special concern)
Friday, October 6 Mid-semester
Tuesday, October 10 Mid-semester reports due
Friday, October 27 Last day to drop a class
Saturday, Nov. 18 through Sunday, Nov. 26 Thanksgiving recess
Thursday, December 7 Last day to withdraw from University
Friday, December 8 Last day of classes
Monday, Dec. 11 through Saturday, Dec. 16 Final examinations week
Sunday, Dec. 17 through Wednesday, Jan. 3 Christmas recess
Friday, December 29 Degree-conferring date (no ceremonies)

Second Semester

Wednesday, Thursday, Friday, January 3-5 New student orientation
Friday, January 5 General registration
Monday, January 8 First day of classes
Monday, January 8 Late registration fee in effect for all students
Friday, January 12 Last day to register, add new courses,
Make section changes, change pass/fail and audit
Monday, January 15 Martin Luther King Jr. birthday recess
Wednesday, February 7 (not a holiday) West Virginia University Day
Friday, February 23 Mid-semester
Tuesday, February 27 Mid-semester reports due
Saturday, March 2 through Sunday, March 10 Spring recess
Friday, March 22 Last day to drop a class
Thursday, April 4 Passover (day of special concern)
Friday, April 5 Friday before Easter recess
Thursday, April 25 Last day to withdraw from University
Friday, April 26 Last day of classes
Monday, April 29 through Saturday, May 4 Final examinations
Monday, May 6 Grade reports for all graduates due in dean's office
Tuesday, May 7 Dean's reports on graduates
Due in admissions and records
Saturday, May 11 Alumni Day
Sunday, May 12 Commencement

West Virginia University Calendar 1996-97

Wednesday, Thursday, Friday, August 14-16	New student Orientation
Friday, August 16	General registration
Monday, August 19	First day of classes
Monday, August 19	Late registration fee in effect for all students
Friday, August 23	Last day to register, add new courses, Make section changes, change pass/fail and audit
Monday, September 2	Labor Day recess
Saturday, September 14	Rosh Hashanah (day of special concern)
Monday, September 23	Yom Kippur (day of special concern)
Friday, October 4	Mid-semester
Tuesday, October 8	Mid-semester reports due
Friday, October 25	Last day to drop a class
Tuesday, November 12	Election day recess
Saturday, Nov. 23 through Sunday, Dec. 1	Thanksgiving recess
Thursday, December 5	Last day to withdraw from University
Friday, December 6	Last day of classes
Monday, Dec. 9 through Saturday, Dec. 14	Final examinations week
Sunday, Dec. 15 through Thursday, Jan. 2	Christmas recess
Friday, December 27	Degree conferring date (no ceremonies)

SECOND SEMESTER

Thursday, Friday, January 2, 3	New student orientation
Friday, January 3	General registration
Monday, January 6	First day of classes; Late registration fee in effect for all students
Friday, January 10	Last day to register, add new courses, Make section changes, change pass/fail and audit
Monday, January 20	Martin Luther King Jr. birthday recess
Friday, February 7 (not a holiday)	West Virginia University Day
Friday, February 21	Mid-semester
Tuesday, February 25	Mid-semester reports due
Saturday, March 1 through Sunday, March 9	Spring recess
Friday, March 21	Last day to drop a class
Friday, March 28	Friday before Easter recess
Tuesday, April 22	Passover (day of special concern)
Thursday, April 24	Last day to withdraw from University
Friday, April 25	Last day of classes
Monday, April 28 through Saturday, May 3	Final examinations
Monday, May 5	Grade reports for all graduates due in dean's office
Tuesday, May 6	Dean's reports on graduates Due in admissions and records
Saturday, May 10	Alumni Day
Sunday, May 11	Commencement

Summer Sessions 1996

First Session

Monday, May 20	Registration, first day of classes
Tuesday, May 21	Late registration for six-week session
Thursday, May 23	Last day to register, add, or change section
Monday, May 27	Memorial Day recess
Friday, June 14	Last day to drop a class
Wednesday, June 26	Last day to withdraw from University
Thursday, June 27	Last day of classes
Friday, June 28	Final examinations

Second Session

Monday, July 1	Registration, first day of classes
Tuesday, July 2	Late registration fee in effect
Thursday, July 4	Independence Day recess
Friday, July 5	Last day to register, add, change section
Friday, July 26	Last day to drop a class
Wednesday, August 7	Last day to withdraw
Thursday, August 8	Last day of class
Friday, August 9	Final examinations
Friday, August 16	Degree conferring date (no ceremonies)

Summer Sessions 1997

First Session

Monday, May 19	Registration, first day of classes
Tuesday, May 20	Late registration for six-week session
Thursday, May 22	Last day to register, add, or change section
Monday, May 26	Memorial Day recess
Friday, June 13	Last day to drop a class
Wednesday, June 25	Last day to withdraw from University
Thursday, June 26	Last day of classes
Friday, June 27	Final examinations

Second Session

Tuesday, July 1	Registration, first day of classes
Wednesday, July 2	Late registration fee in effect
Friday, July 4	Independence Day recess
Monday, July 7	Last day to register, add, change section
Friday, July 25	Last day to drop a class
Wednesday, August 6	Last day to withdraw
Thursday, August 7	Last day of classes
Friday, August 8	Final examinations
Friday, August 15	Degree conferring date (no ceremonies)

ROBERT C. BYRD Health Sciences Center of West Virginia University

West Virginia University's Schools of Dentistry, Medicine, Nursing, and Pharmacy at the Health Sciences Center offer a comprehensive range of undergraduate, graduate, and professional degrees in health care and biosciences. The 29 degree programs offered by the Health Sciences Center are intended to provide West Virginia with a strong group of professionals prepared to meet the varied health care needs of the state. The more than 10,000 alumni of WVU Health Sciences Center programs include about one-third of the state's practicing physicians, two-thirds of its dentists, three-quarters of its pharmacists, and hundreds of nurses, medical and dental technologists, physical therapists, and other health professionals.

A unique combination of state and federal support, charitable contributions from individuals and foundations, and investment by private corporations has allowed the Health Sciences Center to build an unequalled environment for health education. The Health Sciences Center includes three hospitals, a cancer center, and a medical and dental office building. All were built since 1986 and were designed to meet the needs of patient care, education, and clinical research. The WVU Health Sciences Center also includes medical divisions in Charleston and Wheeling and relationships with hospitals and physicians in rural areas of the state. These facilities offer students the opportunity to learn their professions in a setting that realistically reflects the conditions they will encounter after graduation.

Clinical Education Facilities

The West Virginia University Health Sciences Center includes a diverse group of health care facilities, providing a training ground for patient care and research for students in the health professions. West Virginia University Hospitals, the Physician Office Center, the Mary Babb Randolph Cancer Center, Chestnut Ridge Psychiatric Hospital, Mountainview Regional Rehabilitation Hospital, and the National Institute of Occupational Safety and Health (NIOSH) are modern facilities that advance medical research and accommodate the demands of contemporary medical, dental, nursing, and pharmacy care.

WVU Hospitals entered a new era in 1988 with the opening of a 376-bed tertiary teaching facility—Ruby Memorial, the primary teaching hospital for the Health Sciences Center. It is equipped and staffed to provide the most comprehensive and advanced care available in West Virginia, thus making it a superb clinical education site for students. Ruby also houses the Jon Michael Moore Trauma Center and WVU Children's Hospital with their specialized care units.

The Physician Office Center, the Health Sciences Center's outpatient facility for education and patient care, accommodates the largest multi-specialty group practice in West Virginia, with 60 primary and specialty care areas. Dental facilities, the Eye Center, and the Outpatient Pharmacy are integral parts of the Physician Office Center.

Chestnut Ridge Hospital is a 70-bed private psychiatric hospital on the Health Sciences Center campus. It is staffed clinically by faculty from the School of Medicine and is the focal point of education in the behavioral and psychiatric sciences.

Mountainview Regional Rehabilitation Hospital provides unique educational opportunities for students in neurological disease, trauma rehabilitation, and physical and occupational therapy. Many WVU students experience part of their clinical training at the Charleston Division of the Health Sciences Center, which is affiliated with Charleston Area Medical Center. In addition, WVU students train at off-campus sites where they learn the demands of rural health care firsthand.

The School of Dentistry dental clinic accepts patients who have dental problems of teaching value. Faculty members closely supervise those students assigned to clinic patients. The students get invaluable experience through work at the clinic, and several thousand patients receive a much needed service.

University Health Service

When you enroll at the University, one of the charges that you pay is the health service fee. This fee allows you to use the primary medical care provided by the University Health Service. The service, located on the ground floor of Health Sciences South, includes medical consultation and treatment. To use the service, you must present your current student ID.

If you require more specialized care, the Health Service may refer you to an outpatient clinic at the Physician Office Center. In this case, you are responsible for registration fees, doctor's fees, x-ray or lab fees, etc. The University Health Service publishes a brochure that details the services included in the health service fee and outlines services that are not provided.

The emergency department is available to you when the University Health Service is closed. However, all costs incurred at the emergency department are your responsibility. Since most insurance policies cover emergency department costs only when a true emergency exists, we advise you to use this service responsibly and maturely. A voluntary insurance plan is available to you to cover inpatient and outpatient services beyond the primary care covered by the health fee. We urge you to purchase this or a similar coverage.

Library

The Health Sciences Library has a collection of more than 205,000 volumes and extensive holdings of audiovisual materials. It currently receives more than 2400 journals. The library primarily serves the Schools of Dentistry, Medicine, Nursing, and Pharmacy, graduate students in the basic sciences, and the West Virginia University Hospital System. It also supports the biomedical information needs of the University and of health professionals across the state. As West Virginia's resource library in the National Library of Medicine's regional medical library network, the Health Sciences Library operates an efficient interlibrary loan service for University staff and students and for West Virginia's hospitals and clinicians. Other services include on-line searches of data bases available through the National Library of Medicine, Bibliographical Retrieval Services, Chemical Abstracts Services, OCLC, and Wilsonline. Also available are computer facilities permitting students, faculty, and staff to perform their own computer searches. A computerized West Virginia union list of periodicals is maintained, and installation of an integrated library system should soon be under way. The library is open 98 hours a weeks for most of the year; regular hours and variations are posted at the entrance.

Health Sciences Programs

Degree Program	Bachelor	Master	Doctoral/ Professional
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School of Dentistry

Dental Hygiene	B.S.	M.S.	
Dentistry			D.D.S.
Dental Specialties		M.S.	

School of Medicine

Anatomy		M.S.	Ph.D.
Biochemistry (Medical)		M.S.	Ph.D.
Community Health Promotion		M.S.	
Exercise Physiology	B.S.	M.S.	
Medical Technology	B.S.	M.S.	
Medicine			M.D.
Microbiology and Immunology		M.S.	Ph.D.
Occupational Therapy*		M.S.	
Pharmacology and Toxicology		M.S.	Ph.D.
Physical Therapy	B.S.		
Physiology (Medical)		M.S.	Ph.D.
Public Health		M.P.H.	

School of Nursing

Nursing	B.S.N.	M.S.N.	
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School of Pharmacy

Pharmaceutical Sciences		M.S.	Ph.D.
Pharmacy	B.S.Pharm.		Pharm. D.

*Program approved but not yet implemented.

Undergraduate and Professional Programs

Commitment to Social Justice

West Virginia University's role as the doctoral degree-granting, research, land-grant university in the state of West Virginia gives the institution a special responsibility as a leader in the area of social justice. The pursuit of truth underlying the University's mission focuses attention on issues of diversity, power, and perspective, so that students, faculty, and staff may study and work in a climate of academic freedom and social responsibility, developing the skills, knowledge, and self-esteem necessary for participation as world citizens.

Equal opportunity is a fundamental goal in a democratic society, and WVU shares the responsibility for achieving that equity. The institution is committed, therefore, to ensuring that all persons, including women; people of color; people with disabilities; gays, lesbians, and bisexuals; veterans; and people of different religions, ages, and international, ethnic, and economic backgrounds benefit from the many opportunities the institution provides.

In keeping with this responsibility, the members of the academic community are expected to demonstrate mutual respect, understanding, and appre-

ciation for all persons; to express that perspective in every dimension of the institution's life and mission; and to work cooperatively, representing not only the interests of their own groups but also those of the wider community.

The importance of West Virginia University's social justice program goes beyond the benefits that accrue to any one person or group, to the strengthening of the University itself and the enhancing of its ability to accomplish the mission with which it has been entrusted by the people of West Virginia.

Admission

To apply for admission to the various schools of the Health Sciences Center, write to the Assistant Director of Admissions and Records, 1170 Health Sciences North, P. O. Box 9815, Morgantown, WV 26506-9815, and ask for the appropriate application forms.

Space at the HSC is limited, and our applications are numerous. Therefore, we give preference in the admissions process to qualified residents of West Virginia. However, we always consider outstanding nonresident applications. We give most careful consideration to those personal qualifications that reflect your fitness for the study and practice of your chosen profession.

Because we are primarily a group of professional schools and most of our applicants are enrolled in undergraduate studies at a residential college or university, we remind you to include your permanent home address with your request for an application form.

Specific entrance requirements for all Health Sciences programs are detailed in the section pertaining to each program. For information about freshman, transfer, and international admission to West Virginia University, please refer to the undergraduate catalog.

NOTE: During the first semester of your first year at WVU Health Sciences Center, we require that you complete certain prescribed immunization and diagnostic procedures.

Application Fees

Application fees for the Schools of Dentistry and of Medicine are \$30.00. Applications fees for all other Health Sciences Center programs are \$10.00. Application fees must accompany your application form.

When you are accepted into one of our programs (except for medicine or nonresident applicants to the School of Dentistry), you are asked to deposit \$75.00 to make your acceptance official. The deposit for the School of Medicine and for nonresidents in the School of Dentistry is \$100.00. These deposits are applied toward your first semester tuition when you enroll.

If you pay your deposit but do not enroll in the School of Medicine, your deposit is refundable until May 1 of the year you would have enrolled. Deposits for all other programs are not refundable.

Academic Advising

When you enter West Virginia University, you are assigned an academic advisor. Your advisor assists you as you prepare your schedule, assigns classes as required by your degree program, and certifies your study list to the Director of Admissions and Records. Your advisor is also expected to give you advice and sympathetic guidance. You are expected to meet with your advisor to discuss your academic problems.

Students interested in medical technology, nursing, pharmacy, or physical therapy may be admitted to a preprogram in order to complete entrance requirements for admission to the degree program. If you select one of these pre-programs, you are advised through the University Services Center. You must apply for admission with an undergraduate application.

Second or Multiple Bachelor's Degree

To earn a second baccalaureate degree, you must earn at least 30 credits beyond the requirements for your first degree. You must satisfy all requirements, departmental or otherwise, for the second degree. You cannot receive a second bachelor's degree if you have not met the University's residence requirement. (See "Residence Requirements.")

If you wish to earn two baccalaureate degrees at the same graduation date, then you must satisfactorily complete a minimum of 158 credits and meet all requirements, departmental and otherwise, of both degree programs. You must be admitted to both programs. Furthermore, you must provide the Office of Admissions and Records written proof that you do, in fact, have the approval of both colleges and schools.

Undergraduate Policies

Academic Forgiveness Policy

The academic forgiveness policy allows a second chance to students who were unsuccessful in their initial enrollment in higher education. If a student has not been enrolled at a West Virginia Board of Trustees institution for at least five calendar years and has not been enrolled in any other institution of higher learning during those five years, then the student may be eligible for admission or readmission to WVU under the academic forgiveness policy. In order to determine eligibility, he/she must complete the required form, which is available from the Office of Admissions and Records.

The conditions and rules of the academic forgiveness policy are as follows:

a. Admission to WVU under the academic forgiveness policy is conditional upon satisfying the above stated non-enrollment period. In addition, a recommendation that the student be admitted under the academic forgiveness policy must be submitted by the dean of the college or school that the student plans to enter, and the recommendation must be approved by the Office of the Vice President for Academic Affairs.

b. Upon admission to WVU under this policy, the student will be credited with the hours earned for courses completed with a grade of D or higher.

c. Grades earned during any prior enrollment period will not be counted for purposes of calculating the student's grade-point average, but grades earned will remain on the student's permanent record.

d. The student must complete all course work required to meet the college's or school's requirements for graduation, but under no circumstances after the student has been admitted under the academic forgiveness policy shall the student complete fewer than 64 credit hours prior to earning a degree.

e. A student admitted to WVU under this policy will follow all regulations regarding probation, suspension, and expulsion.

Baccalaureate Degrees

Student Responsibility

As a student, you are responsible for your academic well being. Specifically, you are responsible for knowing your scholastic standing as it relates to the published regulations and standards of West Virginia University. This responsibility includes the regulations of your college or school and the regulations of the department or division in which you are earning a degree.

Regulations Affecting Degrees

All degrees are conferred by the University of West Virginia Board of Trustees as recommended by the faculty of the various colleges and schools. A degree is granted at the end of the semester or summer session in which you complete the requirements for that degree, provided that you have submitted an application for graduation and diploma at your academic dean's office.

You become eligible to graduate when you complete the requirements of the University and your college or school in effect at the time you first registered at that college or school. You have seven years after your first registration to complete the requirements. If you do not, you will have to meet the requirements of a later catalog—one that is no more than seven years old when you complete your studies. With the consent of your advisor and your dean, you may choose to meet the conditions published in a later catalog.

Students must observe any program changes enacted by the University of West Virginia Board of Trustees or local, state, or federal law.

West Virginia University policy dictates that, in view of their professional responsibilities to the general public, the faculty of a professional school may recommend to the president of the University, in writing, that a student be removed from its rolls. The recommendation of the faculty must indicate that the student is not fit to meet the qualifications and responsibilities of the profession.

West Virginia University will not confer a degree nor issue a transcript to any student until all tuition, fees, and other indebtedness to any unit of the University is paid.

Credits Required

Each degree program is based upon a combination of required courses and electives. Certain University requirements are listed below. In addition, the various colleges and schools determine their own credit requirements and course grade averages for graduation. Total credits vary from 128 to 145. Required grade averages range from 2.0 to 2.5. The determination to count ROTC courses as free electives or toward fulfillment of Liberal Studies Program requirements is the prerogative of the dean of the college awarding the degree. No more than three credit hours of ROTC may count toward fulfillment of the LSP requirement in each cluster area.

Liberal Studies Program (LSP)

West Virginia University believes that its baccalaureate graduates, in addition to developing competence in major and minor fields of study, should be broadly educated. The University's goals are to prepare its graduates to integrate knowledge from a wide variety of fields; to value the continuing search for breadth of knowledge; to be creative and open to new ideas; and to

be able to deal constructively with the technological, cultural, and social changes that challenge us in our own country and the world. In order that West Virginia University graduates may be able to adapt to changing circumstances throughout a lifetime of learning, the Liberal Studies Program (LSP) helps students to learn to acquire knowledge, to make critical judgments in a logical and rational manner, and to communicate their findings clearly. The program encourages students to appreciate the past; to value lasting traditions; to accept their responsibilities as citizens of a free society; to respect the traditions, values and individuality of fellow human beings; to broaden their knowledge about people different from themselves, whether by reason of nationality, age, class, gender, or race; and to understand the basic concepts and principles of mathematics and the sciences.

Therefore, West Virginia University baccalaureate graduates are expected to possess knowledge and experience in three broad clusters of learning: the arts and humanities, the social and behavioral sciences, and mathematics and natural sciences. In the arts and humanities, students come to understand and appreciate the human experience. In the social and behavioral sciences, students develop an awareness of personal, interpersonal, and societal forces that shape individual lives. In mathematics and the natural sciences, students acquire an understanding of the unifying principles and methods of science and their application to natural phenomena. University graduates are expected to be able to communicate effectively in the written English language and to possess skills in post-high-school mathematics.

Program Components

West Virginia University Liberal Studies Program requirements for all students who receive the baccalaureate degree are divided into a skills component and a distribution component.

Skills Component

Writing:

- All students must successfully complete English 1 and 2. This requirement is in addition to the Cluster A requirements described below.
- All students must successfully complete at least one course that requires a substantial writing component and in which the grade is partially determined by writing skills. These courses will be identified in the LSP portion of the *Schedule of Courses* by a "W". The student must complete English 2 before fulfilling the "W" requirement.

Mathematics:

- All students must successfully complete at least three hours of mathematics or statistics. This requirement is in addition to the Cluster C requirement that is described below. Courses approved for the mathematics skills requirement: Mathematics 3, 4, 11, 14, 15, 16, 23, 28, 128, 131, and 168; Economics 125 and Statistics 101.

Distribution Component

The University courses in the LSP that provide students with broad liberal knowledge and experience are grouped into three Clusters:

Cluster A (Humanities and Fine Arts): The study of humanities develops knowledge of and appreciation for the accumulated wisdom and experience

contained in world literature, history, fine arts, religion, and philosophy, with the objective of bringing the student to an active consciousness of the living, operating, and continuing values of human culture.

Cluster B (Social and Behavioral Sciences): The social and behavioral sciences develop in students the knowledge and appreciation of both themselves and the world in which they live. Through the study of anthropology, communication studies, economics, geography, linguistics, political science, psychology, and sociology, communication studies, students are able to comprehend major concepts, evaluate movements and ideas, and anticipate future trends in societies both at home and abroad.

Cluster C (Natural Sciences and Mathematics): Courses in the natural sciences and mathematics provide information about the natural world, and provide a perspective on how an understanding of the natural world is developed. Educated persons should have a knowledge of the physical, chemical, geological, and biological entities and processes that constitute the natural world. Courses in mathematics, statistics, and computer science can provide the technical tools for an understanding of the natural world, as well as an understanding of the methods and value of mathematics considered as a discipline in itself.

Distribution of Cluster Requirements

Cluster A Requirements: 12 hours of Cluster A courses must be distributed according to the following provisions and successfully completed:

- Courses must be successfully completed in three disciplines.
- Two courses must be successfully completed in the same discipline.
- If foreign language courses are chosen to fulfill Cluster A requirements, no student may use more than one first semester course of an elementary foreign language. Language courses in a student's native language may not be used to fulfill Cluster A requirements.
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster A requirements.

Cluster B Requirements: 12 hours of Cluster B courses must be successfully completed and distributed according to the following provisions:

- Courses must be successfully completed in three disciplines.
- Two courses must be successfully completed in the same discipline.
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster B requirements.

Cluster C Requirements: 11-12 hours of Cluster C courses must be successfully completed and distributed according to the following provisions:

- Courses must be successfully completed in two disciplines.
- At least one course must include a laboratory (identified in the *Schedule of Courses*).
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster C requirements.

NOTE: One three-credit-hour course must focus substantially on the study of a foreign or minority culture or cultures or on women and/or issues of gender.

Inventory of LSP Courses

The courses listed below in Clusters A, B, and C do not constitute an inclusive listing. The Liberal Studies Committee will be changing the list of courses as evaluations are continually made of courses submitted to the LSP Committee for its approval. Students and advisors should consult the latest *Schedule of Courses* for the most recent inventory of courses included in the Liberal Studies Program. Any course listed at any time during the student's period of study may be counted for Liberal Studies Program credit.

Cluster A Courses:

Arabic 1, 2, 3, 4.

Art 30, 105, 106.

Chinese 1, 2, 3, 4.

Classics 1, 2, 3, 4, 101, 102.

Communication Studies 21, 187.

English 21, 22, 24, 25, 30, 35, 36, 40, *80, *85, 125, 130, 131, 132, 133, 134, 141, 143, 150, 170, 171, 172, 175, 178, 180, 181, *186, *188.

Foreign Literature in Translation *13, *14, *15, *16, *17, *18, *111, *112, *121, *122, *131, *132, *141, *142, *151, *152, *161, *162, *166, *171, *181, *182, *188, *189.

French 1, 2, 3, 4, 10, 11.

German 1, 2, 3, 4, 10, 11.

History 1, 2, *5, *6, 11, 12, 52, 53, 100, 101, 103, 105, 107, 109, *117, *118, 119, 120, *121, 122, 155, 156, 157, 159, 161, 177.

Humanities 1, 2, 3, 4, *5, 10, 11.

Italian 1, 2, 3, 4.

Japanese 1, 2, 3, 4.

Landscape Architecture 112.

Linguistics 3.

Multidisciplinary Studies *40, 91, *100.

Music 30, 33, 34, 129, 135, *136, 137, 138.

Philosophy 1, 2, 3, 4, 10, 13, 15, 20, 103, 105, 106, 108, 111, *113, 120, 121, *122, 123, *125, 150, 158, 159, 106/ MATH 161, 166, 171, 172, 187.

Portuguese 1, 2, 3, 4.

Religious Studies 5, 100, 101, 102, 103, 104, 105, 110, 111, 112, 120, 121, 128, *130, *131, *132, 142, 150.

Russian 1, 2, 3, 4.

Spanish 1, 2, 3, 4, 10, 11.

Theatre 30, 50, 74.

Women's Studies *40.

Cluster B Courses:

Agricultural Education 162.

Child Development and Family Studies 10.

Communication Studies 11, 12, 14, 80, 106, 109, *134, *135, 140, 180.

Economics 51, 54, 55.

Forestry 140.

Geography 1, *2, 8, 105, 109, 110, 140, 141, *143, *144, 145.

History *4, *141, *142.

Journalism 1.

Linguistics 1.

Mineral and Energy Resources 97.

Multidisciplinary Studies 2, *40, 50, *60, 70, 90, 92 *100.

Political Science 1, 2, 3, 7, 110, 120, *137, *150, 160, 170, 171.

Psychology 1, 141, 151, *170.

Recreation and Parks 43.

Resource Management 1.

Social Work *47.

Sociology & Anthropology 1, *5, 7, *51, 121, 122, 123, 125, 131, 132, *135,

136, 137, *138, 140, *145, 152, *155, *156, 157, 158, 159, *160, 162.

Women's Studies *40, *145.

Cluster C Courses:

Astronomy 106.

Biology 1, 2, †3, †4.

Chemistry †11, †12, †15, †16, †17, †18.

Computer Science 1, 5.

Economics 125.

Environmental Microbiology 141.

Geography 7, 107.

Geology 1, †2, 3, †4, †6, 7.

Human Nutrition and Foods 71.

Mathematics 3, 4, 11, 14, 15, 16, 23, 28, 128, 131, 168.

Multidisciplinary Studies 2, *60, 70, 90, 91.

Philosophy 11.

Physical Science †11, †12.

Physics †1, †2, 7, 8, †11.

Statistics 101

*Satisfies the foreign culture, minority, or gender studies requirement.

†Satisfies the laboratory course requirement.

Approved 200-Level Courses

No 200-level courses are included in Clusters A, B, and C because they are deemed to be not ordinarily appropriate for the Liberal Studies Program. However, a student may receive approval from his/her advisor to take a 200-level course from the list of approved courses indicated below, in fulfillment of the LSP requirement for each of the three cluster areas.

Cluster A Courses:

Communication Studies 230.

English 211, 220, 235, 236, 240, 250, 255, 256, 261-268, *288.

History 200, 204, 205, 206, 207, 208, 214, *225, *226, 231, 232, *245, *246, *251, *252, 253, 259.

Cluster B Courses:

Communication Studies 221.

Economics 211.

Health Education *290.

History 208, 211, *227, *229, *230, 259.

Political Science *235, *250, *251, *254, *255, *256, *258.

Social Work *247.

Technology Education *245.

*Satisfies the foreign culture, minority, or gender studies requirement.

Residence Requirements

If you decide to transfer to WVU from another institution of higher learning, then you should transfer no later than the start of your third year. Under no circumstances will a student who enters WVU after October 1 in any year be allowed to receive a degree at the next commencement.

In some special cases, you can leave WVU at the end of your third year, and still receive your degree from WVU. You must enter another accredited institution with the purpose of taking a combined program that will lead to two degrees or prepare for graduate study. Before you leave, you must apply to the Academic Standards Committee of your college to request permission to do the work of the fourth year, or a part thereof, at the other institution but still receive the degree from WVU. You will receive your degree when you present the proper records from the other school.

If you are a transfer student who has completed all of your undergraduate work in another school in the West Virginia system of higher education, then you must complete either your last 30 hours of work at WVU or at least 36 hours of work at WVU of which 16 of the last 32 hours must be on campus. If you are a transfer student whose undergraduate work has been completed outside the West Virginia system of higher education, then you must complete a total of 90 hours or at least the last 30 hours of work in residence at WVU. You may be required to earn up to 15 hours in your major field regardless of the number of hours or the nature of the courses transferred.

Work Done Out of Residence

It is WVU's policy to discourage taking regular residence courses in absentia. If you begin a course at WVU but fail to complete it due to illness or some other acceptable reason, you may receive permission to complete the work in absentia. The permission must be granted by the Academic Standards Committee of the college or school concerned, and the work must be done under the guidance of a WVU professor. Credit for the course in such cases is allowed only upon a report of a grade of C or better on the final examination. This regulation does not apply to WVU off-campus courses.

If you fail a course (receive a final grade of F) taken at WVU, you must repeat the course at WVU to receive credit for that course. The dean of the college or school in which you are enrolled may authorize an exception to this regulation. If so, then the dean should provide a letter to be placed in your folder authorizing the exception and explaining its basis.

You should be aware of the requirements for residence and your specific degree requirements described in the catalog when transferring credit from other institutions. If you are transferring credit from institutions outside the West Virginia state system of higher education, WVU will accept credit only for **courses** in which you earned a grade of C or higher provided other conditions above have been met. Under no circumstances will **grades** be transferred from institutions outside the state system.

WVU Transient Students

If you decide to take a course or courses at another school, you must have written approval from your advisor, your dean, and the Director of Admissions and Records or his designee. To receive such approval, you must have an overall 2.0 average. All approved college-level work is accepted for transfer from accredited institutions, provided the above requirements have been met

and you have an overall grade-point average of 2.0. If you have less than a 2.0 average, you can transfer courses after you obtain an overall 2.0 at WVU. Only courses with grades of C or higher are accepted from institutions not in the state system. All grades are transferable from the schools in the state system.

If you fail a course at WVU, you may not repeat this course at another institution and transfer the credit to WVU unless you have the approval of the dean of the college or school in which you are enrolled.

Substitution for Required Courses

You may want to substitute one course for another that is in your curriculum or may be required for your degree. In order to do this, you must get written permission from the Academic Standards Committee of your college or school.

Credit Examinations

Advanced Placement Program (AP)

West Virginia University encourages you to work to your full capacity and to earn your degree at your own learning speed. As a high school junior or senior, you can enter the University early or you can take college-level courses at your school in conjunction with the College Entrance Examination Board (CEEB). The Advanced Placement Service administers three-hour examinations to show competence equal to that received by taking the actual college course. The chart on page 19 shows the subject areas, the necessary test scores, and the WVU equivalent courses.

College Level Examination Program (CLEP)

If you apply for admission to WVU and you have gained a significant level of maturity through your life experiences, you may gain college credit for these educationally related experiences through the College Level Examination Program (CLEP) of the CEEB. A policy of the University of West Virginia Board of Trustees allows University credit to be awarded for successful completion of CLEP subject examinations, except English composition and freshman English. Up to 34 hours of general education credit may be earned for successful performance on the CLEP General Examinations. Although this program was designed primarily for adults, exceptionally well qualified high school seniors may use the CLEP Program. If you are interested, write to the Director of Admissions and Records for additional information. The table on page 20 indicates the areas in which WVU grants credit based on the minimum score required. It should be noted that no one is eligible for CLEP credits after he/she has enrolled at WVU.

If you are a veteran, you may receive advanced placement for specific military experience. Veterans should contact the Director of Admissions and Records for specific information.

Credit by Examination

If you are currently enrolled, you may receive credit for a course or courses if you can demonstrate competency in the course content. The department offering the course determines evaluation standards for the student's competency. If skill and cognitive abilities are components of the course, then both are evaluated. Credit is given only when a satisfactory degree of competency is shown.

Advanced Placement Program

Subject	Test Score	Credit Hours	WVUEquivalent Course
ART:			
Drawing portfolio			To be determined by the Division of Art
General portfolio			To be determined by the Division of Art
Art History	3		To be determined by Division of Art
BIOLOGY	3	8	BIOL 1, 2, 3, 4
	4	4	BIOL 15
CHEMISTRY	3	8	CHEM 15-16
CLASSICS			
Latin-Vergil	3	3	CLAS 191A
Latin-Catullus-Horace	3	3	CLAS 191B
COMPUTER SCIENCE			
Computer Science A	3	3	Non-specific CS
Computer Science AB	3	6	Non-specific CS
ECONOMICS:			
ECON Microeconomics	3	3	ECON 54
ECON Macroeconomics	3	3	ECON 55
ENGLISH:			
English Lang. & Comp.	3	3	ENGL 1
English Lang. & Comp.	4	6	ENGL 1-2
Lit. & Comp.	3	3	ENGL 35
Lit. & Comp.	4	6	ENGL 35-36
FOREIGN LANGUAGES:			
French Language	3	6	FRCH 103-104
French Literature	3	6	FRCH 191
German Language	3	6	GER 103-104
Spanish Language	3	6	SPAN 103-104
Spanish Lit.	3	6	SPAN 191
GOVERNMENT AND POLITICS			
American Government	3	3	POLS 2
Comparative Government	3	3	POLS 1
HISTORY:			
European	3	6	HIST 1-2
American	3	6	HIST 52-53
MATHEMATICS:			
Calculus AB	3	4	MATH 14
Calculus AB	4	4	MATH 15
Calculus BC	3	4	MATH 15
Calculus BC	4	8	MATH 15-16
MUSIC			
Theory	3	3	
*PHYSICS:			
PHYS B	3	4	PHYS 1
PHYS B	4	8	PHYS 1-2
PHYS C Mechanics	3	4	PHYS 11
PHYS C Electricity/Magnetism .	3	4	PHYS 12
PSYCHOLOGY			
Introductory Psychology	3	3	PSYC 1

***NOTE:** Students receiving AP credit for any physics course will have to register for and complete the corresponding physics labs by special arrangement with the Department of Physics.

College Level Examination Program (CLEP)

General Examinations	WVU Equivalent	Minimum Score Required
English Composition (with essay)	ENGL 1 (3 hr.)	590
English Composition (multiple choice)	No credit	
Humanities	Untranslated LSP A (6 hr.)	500
Mathematics	Untranslated LSP C (4 hr.)	500
Natural Science	Untranslated LSP C (6 hr.)	500
Social Science & History	Untranslated LSP B (6 hr.)	500
Subject Tests:		
American Literature	ENGL 24 (3 hr.)	59
Analysis & Interpret. of Literature	ENGL 35 (3 hr.)	59
College Composition	No credit	
English Literature	ENGL 22 (3 hr.)	60
Freshman English	No credit	
College French (levels 1 and 2)	FRCH 1 and 2 (6 hr.)	44
	FRCH 3 and 4 (6 hr.)	55
College German (levels 1 and 2)	GER 1 and 2 (6 hr.)	43
	GER 3 and 4 (6 hr.)	54
College Spanish (levels 1 and 2)	SPAN 1 and 2 (6 hr.)	45
	SPAN 3 and 4 (6 hr.)	54
American Government	POLS 2 (3 hr.)	50
American History I	HIST 52 (3 hr.)	49
American History II	HIST 53 (3 hr.)	49
Western Civilization I	HIST 1 (3 hr.)	50
Western Civilization II	HIST 2 (3 hr.)	50
Educational Psychology	EDP103 (3 hr.)	49
General Psychology	PSYC 1 (3 hr.)	50
Human Growth and Development	CDFS 10 (3 hr.)	51
Intro. Macroeconomics	ECON 55 (3 hr.)	50
Intro. Microeconomics	ECON 54 (3 hr.)	50
Intro. Sociology	SOCA 1 (3 hr.)	50
College Algebra	MATH 3 (3 hr.)	48
Trigonometry	MATH 4 (3 hr.)	54
College Algebra/Trig.	MATH 14 (4 hr.)	50
Calculus with Elementary Functions	MATH 15 (4 hr.)	49
General Biology	BIOL 1 and 2 (6 hr.)	49
	(no credit for the labs)	
General Chemistry	CHEM 15 (4 hr.)	50
Computers and Data Processing	C S 1 (4 hr.)	49
Intro. to Management	MANG 105 (3 hr.)	50
Intro. Accounting	ACCT 51 and 52 (6 hr.)	54
Intro. Business Law B.	BLAW 111 (3 hr.)	51
Intro. Marketing	MKTG 111 (3 hr.)	50

A college, school, or department may ask you to prepare a self-evaluation statement. The purpose of the statement is to determine the competency you believe you have and the methods by which you achieved it. If you are interested in credit by examination, contact the dean in the college or school offering the course. The details and procedures will be explained to you at that time.

Credit for Correspondence Work

You may receive credit for correspondence work in non-laboratory courses. You have to meet certain conditions that govern this credit:

- A maximum of 30 hours is acceptable.
- The work must be from accredited institutions.
- The institution must accept the credit toward its own degrees.
- WVU must ordinarily accept that institution's residence work.

Graduate Credit Via Senior Petition

You may begin graduate study early through the University's senior petition policy. A senior petition form may be obtained from the Office of Admissions and Records. You must have it signed by your advisor and the dean of the college granting your degree and the dean of the college of your intended graduate degree (if different). The University has certain policies for you to follow in order to enroll in a graduate course for graduate credit. The policies are:

- Senior petition applies only to courses numbered 200-399. You must be within 12 hours of receiving your bachelor's degree, and your grade-point average must be at least 3.0 on a 4.0 scale.
- You can receive only 12 graduate hours through the senior petition.
- You must have the proper signatures on your senior petition by the time you enroll in the petitioned courses.

Return the approved senior petition to the Office of Admissions and Records. It is kept on file so that you receive graduate credit for these courses on your permanent record. The dean of the college or school in which you are taking graduate courses must approve any exceptions to the policy.

Note: If you receive graduate credit for a course, the credit for that course does not count for your undergraduate degree.

Visitors

Full-time University students may attend classes as visitors. To visit a class, you must have permission in writing from your advisor and the instructor of the course. A member of the administration, teaching staff, or other regular University employees may also attend classes as visitors. These individuals also must have the written permission from their department and the instructor of the class. As a visitor, you do not receive credit for that class. You may not apply for a credit by exam in a class in which you were a visitor.

Auditors

You may register for courses as an auditor and pay full fees for the course. In this situation, you do not receive credit for the course. If you audit a course in one semester, you must let one semester pass before you enroll in the course for credit. You may change your status from audit to grade or grade to

audit only during the registration period. Attendance requirements for auditors are determined by the instructor of the course. The instructor may direct the Office of Admissions and Records to remove an auditor from a class list or grade report if attendance requirements are not met.

Summer Sessions

WVU has two six-week sessions. Summer Session One begins in the middle of May and ends on June 30. Summer Session Two begins on July 1 and ends the second week of August. Requirements for admission and work performance for the summer sessions are the same as for the regular semesters.

You may earn credit toward a baccalaureate, master's, doctoral, or professional degree in the summer sessions. Summer offerings vary from year to year. For complete information concerning course offerings during the summer sessions, consult the Summer Session Schedule of Courses.

Evening Classes

If you are unable to attend classes during the day, the University offers evening courses taught by regular faculty. These courses carry full college credit and are offered at both the undergraduate and graduate levels.

Classification of Students

WVU undergraduates are classified as freshmen, sophomores, juniors, or seniors. These classifications are based upon the number of hours completed. The classifications are as follows:

Freshman classification	1-28 hours, inclusive
Sophomore classification	29-58 hours, inclusive
Junior classification	59-88 hours, inclusive
Senior classification	89 or more semester hours

Grade-Point Average

All academic units of the University require minimum standards of scholastic quality. Your grade-point average is computed on grades earned in courses taken at WVU and institutions in the WV system of higher education only. To be eligible to receive a baccalaureate degree, you must have a grade-point average of at least 2.0 at the time of graduation. Some degree programs require a higher grade-point average overall or in the major courses. Your grade-point average is based on all work for which you received letter grades other than W, WU, and P. See "D/F Repeat Policy".

You must make certain that you know your grade-point standing. You can obtain the necessary information concerning your grade-point standing from the dean of your college or school. To determine your grade-point average, use the method described in the section on grade points.

Graduation with Honors

WVU recognizes distinguished academic achievement by awarding degrees *cum laude*, *magna cum laude*, and *summa cum laude*. This distinction can be awarded on the initial or second baccalaureate degrees. All candidates for a baccalaureate degree with a grade-point average of 3.8 or higher graduate *summa cum laude*. Those with a grade-point average of less than 3.8

but equal to or above 3.6, graduate *magna cum laude*. Those with a grade-point average of less than 3.6 but equal to or above 3.4, graduate *cum laude*.

Your grade-point average for honors consideration is based on baccalaureate-level college work attempted through the next to the last semester or through the last semester, whichever GPA is higher. This calculation includes transferrable baccalaureate-level college work attempted at all regionally accredited higher education institutions you have attended. Credit hours earned with a grade of P or S are not considered in the determination. Additionally, your GPA on WVU work must meet the requirements stated for the level of honors to be designated. If your GPA on WVU work indicates a lower level of honors, then the WVU GPA shall govern the specific designation.

Students entering and completing a second baccalaureate degree program following completion of the initial degree at the University are eligible to receive the honors designation. Grade point averages for graduation with honors on second baccalaureate degrees shall be computed on the last 80 semester hours of baccalaureate-level work excluding the credit earned with a P or S. At least 30 semester hours must have been completed in the second degree program through the penultimate semester.

A request for an exception to this policy may be made to your college/school dean. After review, the dean will forward all requests for exceptions of this policy to the Provost for the final decision.

This policy will be in effect for all students whose first enrollment at WVU is on or after August 15, 1992.

Academic Progress Courses

As a general rule, most courses taught at WVU extend for one semester, although some extend for two semesters. Credit is not awarded for a course if you do not attend the whole course. The only exception to this rule occurs if the Committee on Academic Standards decides to grant an exception. Grades reported at the end of the first semester in a two-semester course are merely an indication of the quality of the student's work to that point. Credit is not given for that part of the course completed. Courses taught in the summer sessions carry the same credit value as fall and spring semester courses.

Evaluation of Student Progress

Your progress is evaluated by a variety of methods. The measurement and evaluation of learning are consistent with the objectives of the course and provide the opportunity for you and your instructor to evaluate your progress. The University discourages evaluation by final examination only. You are responsible for all materials presented or assigned in scheduled instructional sections. If you do not complete all assigned work, you may earn an incomplete (I) or a failing grade (F).

The last week of each semester of the academic year is designated finals week. Final examinations for the summer sessions are given on the last day of classes. The *Schedule of Courses* gives the date and times for final examinations.

Practical laboratory tests, makeup examinations, and regularly scheduled short quizzes are the only tests permitted for day classes during the week of classes preceding finals week. Evening classes have their final exams the last meeting of the class preceding finals week.

If you take a section of a multi-section course, you may be required to take the departmental final examination, given during the regular final examination period.

Grading System

A:	excellent (given only to students of superior ability and attainment)
B:	good (given only to students who are well above average, but not in the highest group)
C:	fair (average for undergraduate students)
D:	poor but passing (cannot be counted for graduate credit)
F:	failure
I:	incomplete
W:	withdrawal from a course before the date specified in the University Calendar
WU:	withdrawal from the University doing unsatisfactory work
P:	pass (see Pass-Fail Grading below)
X:	auditor, no grade and no credit
CR:	credit but no grade
PR:	progress. Final grade at end of the second semester (HSC)
S:	satisfactory
U:	unsatisfactory (equivalent to F)
*F:	unforgivable F, not eligible for D/F repeat policy

Pass-Fail Grading

Pass-fail grading encourages you to take elective courses not related to your degree concentration. Pass-fail grading also facilitates grading in competency-based courses which may be an integral part of your program.

Student Option. Any full-time student who has completed 15 hours or more and has maintained a 2.0 grade-point average may take a maximum of four hours each semester or summer session on a pass-fail basis. Any course taken on a pass-fail basis must be a free elective. You are limited to a total of 18 hours of pass-fail credit in your collegiate career. Unless otherwise indicated, courses in your major, courses in other subjects that are required by the major, and courses taken to satisfy University, college, school, or departmental requirements are excluded from pass-fail. For example, courses elected to satisfy the English, Liberal Studies Program (LSP), or foreign language requirements may not be taken for pass-fail grading.

If you elect a course on a pass-fail basis, you are graded as a regular student. The instructor gives the letter grade to the Office of Admissions and Records. The letter grade is then converted to a P on the basis of A, B, C, or D for a pass and F for a fail. The grade of P does not affect your GPA. However, any F grade affects your GPA whether it is a regular grade or a pass-fail grade.

You choose the option of pass-fail grading for a course during the registration period. Once the registration period has ended, you may not change the grade status in the course.

College or School Option. A department or unit may designate any performance- or competency-based course as exclusively pass-fail. To do this, the college or school must have the approval of the Faculty Senate. Courses offered only as pass-fail are not included in the maximum of 18 hours that may be freely elected under the student option.

Grade Points

Each letter grade has a numeric value. Grade points are based on this number value and the credit-hour value of the course. The numeric value of letter grades are as follows:

A	B	C	D	F	I	U
4	3	2	1	0	0	0

The grade-point average is computed on all work for which you registered, with the following exceptions:

- Courses with a grade of W, WU, P, S, and X carry no grade value. The grade of incomplete (I) initially carries no grade value.

- The grade of I is given when the instructor of the course believes that the work is unavoidably incomplete or that an additional examination is justified. To remove the grade of I, you do not register for the course again; instead, you arrange to submit incomplete or supplemental work to the original instructor of the course. When you receive the grade of I and later remove the incomplete grade, the grade-point average is calculated on the basis of the new grade. If you do not remove the I grade within the next semester in which you are enrolled, the grade of I is treated as an F (Failure). The Academic Standards Committee of the appropriate college or school may allow you to postpone removal of the I grade if you can justify a delay.

- If you are working toward teacher certification, you are responsible for every registration in a course in which the grade of A, B, C, D, F, WU, P, X, or I is received.

GPA Calculations

Students like to know how to calculate their overall and semester grade-point averages. The following example shows how to do it. Assume you are registered for 16 hours and receive the following grades in these courses:

English 1	B	Mathematics 3	A
Geology 1	C	Political Science 1	B
Spanish 1	D	Orientation 1	P

Course	Credit	Grade	Grade Value	Credit X Grade Value	Grade-Points
English 1	3	B	3	3 X 3	= 9
Geology 1	3	C	2	3 X 2	= 6
Spanish 1	3	D	1	3 X 1	= 3
Mathematics 3	3	A	4	3 X 4	= 12
Political Science 1	3	B	3	3 X 3	= 9
Orientation 1	1	P	0	1 X 0	= 0

1. Multiply the credit by the grade value to get the grade points earned for each course.
2. Add the Total Grade Points, in this case, 39.
3. Divide the Total Grade Points by the total credit hours with a grade value.

Remember that P grades have no grade value, so in this case, there are 15 credit hours for the GPA calculation. 39 divided by 15 = grade-point average of 2.6.

D/F Repeat Policy

WVU has a D/F repeat policy for undergraduate students who have not received their initial baccalaureate degree. If you earn a D or F in a course at WVU taken no later than the semester or summer session registration when you reach a cumulative total of 60 hours attempted, you are eligible to D/F repeat that course by meeting with your academic advisor sometime during the semester in which you are repeating the course and filling out the appropriate forms. You must repeat the course at WVU. You will have only one opportunity to improve your original grade. The new grade becomes the grade that counts, even if your performance is worse than when you were originally graded.

When you have D/F repeated a course, the following happens:

1. The original grade is disregarded for the purpose of determining your grade-point average, hours passed, and hours attempted.
2. The original grade is not deleted from your permanent record.
3. The second grade is entered on your transcript and marked repeat in the semester that you repeated the course.
4. You can exercise your right under the D/F repeat policy at any time before you receive your initial baccalaureate degree. If you get a grade of F in a course for disciplinary reasons or for cheating, the grade is not eligible for change under the D/F repeat provisions. Such a failure is indicated on your permanent record by an *F and is calculated in your grade-point average.

Grade Reports

During the seventh week of classes in the fall and spring semesters, instructors submit a report of all undergraduate students earning grades of D or F. These grades are used for counseling and are not recorded on the student's official permanent record. These reports are sent first to the Office of Admissions and Records and then to the student, the student's advisor, and the dean of the college or school in which the student is enrolled.

Final grades are reported within 48 hours after the end of the final examination. The instructor submits the grade reports to the Office of Admissions and Records. The final grades of all seniors provisionally approved for graduation at the close of each semester or summer session are reported to the deans of their colleges or schools. Special report forms for this purpose are supplied by the student's dean.

At the end of each semester or at the close of each summer session, a report of each student's work is prepared for that period and sent to the student.

West Virginia University Policy on the Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 is a Federal law which states: (a) that a written institutional policy must be established; and (b) that a statement of adopted procedures covering the privacy rights of students be made available. The law provides that the institution will maintain the confidentiality of student education records.

West Virginia University accords all the rights under the law to students who are declared independent. No one outside West Virginia University shall have access to nor will West Virginia University disclose any information from students' educational records, without the written consent of students except

to personnel within West Virginia University and the West Virginia Board of Trustees; to persons or organizations providing students' financial aid; to accrediting agencies carrying out their accreditation function; to persons in compliance with judicial order; to organizations conducting studies for, or on behalf of, education agencies of institutions for the purpose of developing, validating, or administering predictive testing student aid programs, and improving instruction; and to persons in an emergency in order to protect the health or safety of students and/or other persons. All these exceptions are permitted under the Act.

The Act also permits disclosure of information from students' educational records, without the written consent of students, to parents of a dependent student of such parents, as defined in Section 152 of the Internal Revenue Code of 1954, as amended. West Virginia University intends to consider all students as "dependent" for purposes of disclosure of information to parents unless the students specifically notify in writing the Office of Admissions and Records, West Virginia University, that they are not a "dependent" of their parents for federal income tax purposes. Students need to give such written notification only once.

The West Virginia University Policy on the Family Educational Rights and Privacy Act explains in detail the procedures to be used for compliance with the provisions of the Act. Copies of the policy can be found in the offices of all deans and directors. The policy also is printed in the *Student Handbook* and annually in the *Daily Athenaeum*. The offices of the deans and directors can inform students as to the locations of all education records maintained on students by West Virginia University.

Transcripts of Academic Records

Each copy of an official transcript costs five dollars, payable in cash or money order. You may request, in person, an on-the-spot transcript at a cost of eight dollars. Priority service is not available at all times. Because of demand, it may take two to three weeks to process an application for a regular transcript at the close of a semester or summer session. At other times, it is the policy of WVU to process all regular transcript requests within 48 hours of receipt of the request.

If you owe money or have some other financial obligation to any unit of the University, you forfeit your right to claim a transcript of your record until you meet your obligation. Additionally, you also forfeit the right to claim your diploma until these financial obligations have been met.

When you apply for a transcript, you must furnish your last date of attendance and your student number. Be sure to indicate the full name under which you were enrolled. Requests for transcripts must be made in writing to the Office of Admissions and Records. We cannot accept telephone requests because of the risk to the security of your record.

Final Grade Appeals

Students have the right to appeal final course grades which they believe reflect a capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race, sex, age, handicap, veteran status, religion or creed, sexual orientation, color, or national origin. The grade appealed shall remain in effect until the appeal procedure is completed or the problem resolved. The primary intent of this procedure is to provide a mechanism

whereby a student might appeal a failing grade or a grade low enough to cause the student to be eliminated from some program or to require the repetition of a course. Grade appeals that do not meet this classification are not precluded.

Step 1. The student shall discuss the complaint with the instructor involved prior to the midsemester of the succeeding regular semester, whether the student is enrolled or not. If the two parties are unable to resolve the matter satisfactorily, or if the instructor is not available, or if the nature of the complaint makes discussion with the instructor inappropriate, the student shall notify the chairperson of the instructor's department or division (or, if none, the dean). The chairperson or dean shall assume the role of an informal facilitator and assist in resolution attempts. If the problem is not resolved within 15 calendar days from when the complaint is first lodged, the student may proceed directly to Step 2.

Step 2. The student must prepare and sign a document which states the facts constituting the basis for the appeal within 30 calendar days from when the original complaint was lodged. Copies of this document shall be given to the instructor and to the instructor's chairperson (or, if none, to the dean). If, within 15 calendar days of receipt of the student's signed document, the chairperson does not resolve the problem to the satisfaction of the student, the student will forward the complaint to the instructor's dean (see Step 3).

Step 3. Within 15 calendar days of receipt of the complaint, the instructor's dean shall make a determination regarding the grade, making any recommendation for a grade change to the instructor involved. If the instructor involved does not act on the dean's recommendation, or if the student is in disagreement with the decision of the dean, the dean will refer the case to a representative committee, appointed by the dean, for final resolution. This committee shall consist of three or more faculty members, including at least one person outside the instructor's discipline.

1. Upon receiving an appeal, the committee will notify in writing the faculty member involved of the grade challenge, which shall include a statement of the facts and evidence to be presented by the student.

2. The committee shall provide to the faculty member involved and the student making the appeal written notification of their right to appear at a hearing to be held before the department or college or school representative committee, together with the notice of the date, time, and place of the hearing.

3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.

4. The final decision of this committee shall be forwarded to the instructor and to the dean involved. If the decision requires a change of grade, the instructor shall take action in accordance with the committee's decision.

5. If the instructor does not act within five days, the dean shall make any necessary grade adjustment.

6. In the case of grade appeals, the dean functions as the President's designee; therefore, implementation of this decision shall end the appeal procedure.

Absences

If you are absent from class for any reason, you are responsible for all work that you missed. Absences may jeopardize your grade(s) in that class or possibly the ability to continue in that course. Instructors are responsible for

keeping an accurate record of students enrolled in their classes and their attendance. If an instructor uses attendance records in determining the final grade in a course, then this fact must be announced to the students in writing within the first five class meetings.

Absence from Examinations

You are required to take all regular examinations in a course. If you attend a course all semester but you do not take the final examination and you do not have the instructor's permission to miss it, the instructor may give you a grade of zero for the examination and report a grade of F for the course. If, however, the instructor believes your absence was necessary, he/she has the option to report a grade of incomplete (I).

If your absence from a regularly scheduled examination was due to illness, an authorized University activity, or another reason approved by your dean, you have the opportunity to make up the examination.

Withdrawals From Individual Classes

Deadlines: Until the Friday of the tenth week of class (or Friday of the fourth week in a six-week summer session, or Friday of the second week of a three-week summer session), students may withdraw from individual courses. Deadlines are published in the University *Schedule of Courses* each semester. If you follow all established University procedures and withdraw before the published deadline, you will receive a W on your transcript. Grade-point averages are not affected in any way by this mark.

Procedures:

1. Before withdrawing from individual classes, consult your advisor to determine:

- Whether your course load would be reduced below the minimal requirements set by your college or school. If so, you must get permission from the Committee on Academic Standards of your college or school before you submit the course adjustment form.
- Whether your course load would be reduced below the minimal number of hours required to qualify for financial aid, varsity athletic competition, or international full-time student status;
- Whether the courses to be dropped are required to fulfill academic probationary conditions;
- Whether the courses from which you want to withdraw might be corequisite with other courses you are taking, or prerequisite to other courses required for the next term.

2. Ask your advisor to sign the University course adjustment forms and then submit the forms to the Office of Admissions and Records.

Withdrawal From the University

Deadlines: You may withdraw from the University any time before the last day of a semester or session on which regular classes are scheduled to meet. If you withdraw before the Friday of the tenth week of classes (or the Friday of the fourth week in a six-week summer session, or the Friday of the second week of a three-week summer session) you receive grades of W in all of your courses for that semester or session. After these deadlines, you will receive grades of W in those courses in which you made satisfactory progress and grades of WU for courses in which your progress had been unsatisfactory.

Procedures:

1. Students who decide to leave WVU should withdraw from all classes and must do so in accordance with established University policy. Students are responsible for all financial obligations and for following established procedures. This includes the completion of forms and the delivery of the completed forms to appropriate officials. Students not fulfilling their financial obligations may have difficulty withdrawing from the University. A withdrawal becomes official only after the forms have been recorded by the Director of Admissions and Records.

2. Students who are unable to withdraw in person because of illness, accident, or other valid reasons still must send notification of their intention to withdraw to the Office of Student Life. The notice should be verified in writing and the student ID and PRT cards enclosed.

3. Students who desire to withdraw from WVU must obtain a withdrawal form from the Student Affairs office (or dean's office of an off-campus instructional unit). Withdrawal procedure is explained at that time. Identification (ID) and PRT cards must be presented.

4. With the help of their academic advisors, students are responsible for determining how withdrawal from the University may affect their future status with the University, including such aspects as suspension for failure to make progress toward a degree or violation of established academic probation and eligibility for scholarships, fellowships, or financial aid.

Academic Leave of Absence

WVU offers undergraduate students in good standing, as defined by WVU's uniform suspension policy and not subject to disciplinary action, the opportunity to request an academic leave of absence. The academic leave of absence is designed for the student who wishes to be away from his/her academic endeavors at WVU for one or more semesters, but intends to return at a later date. Leave of absence status must be requested before the beginning of the semester for which the leave is desired. The academic records of students on an academic leave of absence remain in an active status. While on an academic leave of absence, the student retains the right to use certain campus facilities such as the Reading Lab, Writing Lab, Math Lab, Student Counseling Service, and Career Services. When a student decides to return to WVU after his/her academic leave of absence, application fees are waived. If a student attends any institutions of higher education while on leave of absence, s/he must obtain an overall average of 2.0 on all work attempted in order to be eligible to return. An overall grade point average of 2.0 on all work attempted while on leave combined with the WVU grade point average is also acceptable. While on an academic leave of absence, the student receives communications from WVU. Academic advisors and the Office of Admissions and Records can provide additional details about an academic leave and eligibility requirements.

Re-Enrollment After Withdrawal

After you withdraw from WVU in two consecutive semesters (excluding summer sessions), you may not register for further work without approval of the dean of the college or school in which you want to register and subject to conditions set by that dean.

Committee on Academic Standards

The Committee on Academic Standards of each college or school shall have authority to proceed according to its best judgment in regard to students referred to it for consideration. All orders of the committee shall become effective when approved by the dean of the college or school. In exercising its authority, the committee shall not suspend a student during a semester except for willful neglect and in cases where the student's class grades are so low that further class attendance would be a waste of time. No suspension shall become effective until approved by the dean of the college or school.

Probation, Suspension, Readmission, Expulsion Policy

Uniform Probation

Students with a cumulative grade-point average below 2.0 are notified on semester grade reports that their academic performance is unsatisfactory. Such students may be subject to probation by the dean of their college or school. A unit may require a grade-point average above 2.0 or other academic requirements for purposes of determining probation or meeting degree requirements. Students have the right to have the sanction of academic probation reviewed and explained by the academic official who imposed the sanction. Academic probation is not recorded on a student's permanent record and constitutes a warning to the student of standards which must be met.

Maximum Allowable Grade-Point Deficiency*

<i>Total Hours Attempted**</i>	<i>Maximum Grade-Point Deficiency**</i>	<i>Total Hours Attempted**</i>	<i>Maximum Grade-Point Deficiency**</i>
0-19	20	55-59	12
20-24	19	60-64	11
25-29	18	65-69	10
30-34	17	70-74	9
35-39	16	75-79	8
40-44	15	80-84	7
45-49	14	85 or more	6
50-54	13		

*The grade-point deficiency is the difference between the number of grade points needed for a 2.0 average and the number of grade points that a student has actually earned in all courses attempted.

**Includes all hours attempted in institutions in the West Virginia System of Higher Education, excluding grades of P and exclusive of the D/F Repeat Policy.

Uniform Academic Suspension Regulations

The student whose cumulative grade-point deficiency exceeds the "allowable grade-point deficiency" (see Table) is subject to suspension at any time. Normally, students are suspended at the end of a semester or summer school session. Deans have the authority to waive suspension in favor of probation if in their judgment the circumstances of individual cases so warrant. The suspension rule will be set aside only under extraordinary conditions.

Academic suspension identifies the status of a student who has failed to meet the University minimum standards and who has been notified formally by

the dean of the college or school of academic suspension. Suspension from the University means that a student will not be permitted to register for any classes, including those in summer sessions, offered by the University for academic credit until the student has been officially reinstated. The normal period of suspension is a minimum of one academic semester but will not exceed one calendar year from the date of a student's first suspension. A student who has been suspended for academic deficiencies and who takes courses at other institutions during the period of suspension cannot automatically transfer such credit toward a degree at West Virginia University upon readmission to the University. Students are not eligible for readmission if they earn less than a 2.0 at other institutions while on suspension from WVU.

After one semester of satisfactory performance (C average or better on a minimum of 12 credit hours earned during a regular semester or during the summer sessions) the appropriate transfer credit will be entered into the student's record upon certification by the advisor and dean that the above conditions have been met. A student who has preregistered and is subsequently suspended shall have his/her registration automatically cancelled.

Reinstatement After Suspension

During the semester immediately following the effective date of suspension, suspended students may petition in writing for reinstatement. The college or school petitioned shall establish the terms of reinstatement for successful student petitions. After one calendar year from the effective date of suspension, any student who has been suspended one time shall, upon written application, be reinstated to the University and to the college or school in which the student was previously enrolled, unless the student petitions for admission to another college or school. The college which reinstates the student removes the student's suspension restriction in Admissions and Records and accepts the student.

A suspended student who is reinstated under the provisions above will be placed on academic probation and will be subject to the maximum grade-point deficiency regulations as before, unless the terms of probation agreed to by the student and that college stipulate otherwise. Each college or school shall have the right to establish requirements or performance expectations.

After the second or any subsequent suspension, a student may be reinstated to the University provided that a college or school agrees to reinstate the student. After a student has been reinstated, he/she must apply for readmission through the Office of Admissions and Records.

Appeal of Suspension

Imposition of academic suspension based on grade-point average, failure to meet the conditions previously specified for removal of academic probation, or failure to meet the conditions of admission, may be appealed under the following conditions:

- The student may appeal individual final course grades and, if successful, may be reinstated.
- The student may make an appeal to the appropriate dean based on erroneous calculation of the grade-point average or on erroneous calculation of the time period within which a grade-point average must be achieved. The decision of the dean, as the President's designee, is final.

Students have the right to appeal academic suspensions based on requirements or standards other than grades or grade-point average which they believe reflect capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race or color, sex, sexual orientation, veteran's status, religion, age, disability, national origin, creed, ancestry, or political affiliation. At the dean's discretion, suspensions may remain in effect until appeal procedures are completed.

Step 1. The student shall discuss the complaint with the dean involved within 30 calendar days of the action taken. If the two parties are unable to resolve the matter satisfactorily within 15 calendar days, the student may proceed to Step 2.

Step 2. The student must prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document shall be given to the University Committee on Student Rights and Responsibilities. Within 15 calendar days of receipt of the appeal, the University Committee on Student Rights and Responsibilities will arrange a hearing using the following procedures:

1. All parties involved shall receive written notice of the date, time, and place of the hearing.

2. The student may be advised by a person of his/her choice from within the institution; likewise, the academic officer recommending suspension may have an advisor from within the institution. Such advisors may consult with but may not speak on behalf of their advisees or otherwise participate.

3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.

4. Witnesses may be called by any of the parties involved.

5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of the parties involved upon written request.

The decision of the University Committee on Student Rights and Responsibilities will be sent to the dean involved and the student within seven calendar days of the hearing. If the decision requires a reinstatement, the dean will take action in accordance with the Committee's decision. If the decision of the Committee is to uphold the suspension, the student's appeal must reach the appropriate Vice President within 30 calendar days of receipt of the Committee decision. The Vice President will review and make a decision regarding the suspension within 15 calendar days of receiving the student's appeal. The decision of the Vice President, as the President's designee, is final.

Uniform Academic Dismissal Regulations

Academic dismissal from the University means that a student will not be permitted to register for any classes, including those in summer sessions, offered by the University. Academic dismissal can result from repeated failure to make academic progress and/or to meet probationary terms set forth in writing by the student's college or school.

After five calendar years from the effective date of academic dismissal, any student who has been dismissed shall, upon written application, be considered for reinstatement to the University, with the terms of reinstatement to be established by the college or school entered. Failure to meet these terms will result in permanent academic expulsion.

Appeal of Dismissal

Note: The procedures and appeals described do not apply to dismissal as a sanction for academic dishonesty.

The time limitations stated herein are suggested in order to render a decision as expeditiously as possible. In the case of University holidays or absence of person(s) involved, reasonable delays may be expected.

A decision to dismiss a student for failure to meet academic standards (as distinguished from academic dishonesty) can be made only after the student has been counseled by the appropriate departmental committee or representative, with counseling to take place as soon as possible after discovery of the problem. After the student is given a reasonable opportunity to correct deficiencies, there shall then be a formal review of the student's status by the appropriate departmental or program committee to determine whether the student shall be retained or dismissed. The student may provide the committee written documentation of his/her efforts to correct deficiencies. A committee recommendation for dismissal, including any documentation provided by the student to the committee, shall be forwarded to the student's dean and to the student. Within 15 calendar days of receipt of the committee's recommendation, the dean shall inform the student and the student's department/program of his/her decision. A decision to dismiss shall specify whether the dismissal is from the program or college/school. The dean may also dismiss a student from the institution if the student does not meet institutional standards.

Dismissal, based on grades or grade-point average, from undergraduate programs, graduate programs, professional programs, and/or from the institution, may be appealed.

Step 1. The student shall prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document must reach the dean within 30 calendar days of receipt of written notice of dismissal. The student shall be given an opportunity to discuss the appeal with the dean at any time in Step 1. If the matter is not resolved satisfactorily within 15 calendar days of a dean's receipt of a student's appeal, the student may proceed to Step 2.

Step 2. The student will forward a copy of the appeal to the appropriate Vice President within 15 calendar days of failure to resolve the matter at the dean's level. Prior to the decision of the Vice President, the student will be given an opportunity to discuss the appeal with the Vice President. The decision of the Vice President, as the President's designee, shall be rendered within 15 days of receipt of the student's appeal and is final.

Dismissal, based on failure to meet academic requirements or performance standards irrespective of grades or grade-point average, from undergraduate programs, graduate programs, professional programs, and/or from the institution, may also be appealed. Students have the right to appeal academic dismissal based on requirements or standards other than grades or grade-point average which they believe reflect capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race or color, sex, sexual orientation, veteran's status, religion, age, disability, national origin, creed, ancestry, or political affiliation.

Step 1. The student shall prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document must reach the dean within 30 calendar days of receipt of written notice of dismissal. The student shall be given an opportunity to discuss the appeal with the dean at any

time in Step 1. If the matter is not resolved satisfactorily within 15 calendar days of the dean's receipt of a student's appeal, he/she may proceed to Step 2.

Step 2. The student will forward a copy of the appeal to the University Committee on Student Rights and Responsibilities, which, within 15 calendar days of receipt of the student's appeal, will arrange a hearing using the following procedures:

1. All parties involved shall receive written notice of date, time, and place of hearing.

2. The student may be advised by a person of his/her choice from the institution; likewise, the academic officer recommending academic dismissal may have an advisor from the institution. Such advisors may consult with but may not speak on behalf of their advisees or otherwise participate directly in the proceedings unless they are given specific permission by the University Committee on Student Rights and Responsibilities Chairperson.

3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.

4. Witnesses may be called by any of the parties involved.

5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of the parties involved upon written request.

The University Committee on Student Rights and Responsibilities will reach a decision within seven days. The committee's recommendation for dismissal must be reviewed by the appropriate Vice President, who may confirm or remand the recommendation with specific instructions. Prior to the decision of the Vice President, the student will be given an opportunity to discuss the appeal with the Vice President. Within 15 calendar days of a recommendation for dismissal confirmed by the Vice President, the student may appeal to the President. The decision of the President is final.

Academic Integrity/Dishonesty

The academic development of students and the overall integrity of the institution are primary responsibilities of WVU. Academic dishonesty is condemned at all levels of life, indicating an inability to meet and face issues and creating an atmosphere of mistrust, disrespect, and insecurity. In addition, it is essential in an academic community that grades accurately reflect the attainment of the individual student. Faculty, students, and administrators have shared responsibilities in maintaining the academic integrity essential for the University to accomplish its mission.

Responsibilities

Students should act to prevent opportunities for academic dishonesty to occur, and in such a manner to discourage any type of academic dishonesty. Faculty members are expected to remove opportunities for cheating, whether related to test construction, test confidentiality, test administration, or test grading. This same professional care should be exercised with regard to oral and written reports, laboratory assignments, and grade books.

Deans and department chairpersons are expected to acquaint all faculty with expected professional behavior regarding academic integrity, and to continue to remind them of their responsibility. Deans and department chairpersons shall assist faculty members and students in handling first-offense

cheating allegations at the lowest possible level in the University, and with discretion to prevent damage to the reputation of any person who has not been found guilty in the prescribed manner.

Each member of the teaching faculty and all other WVU employees, including but not limited to assistants, proctors, office personnel, custodians, and public safety officers, shall promptly report each known case of academic dishonesty to the appropriate supervisor, department chairperson, or dean of the college or school concerned, and to the Office of Judicial Programs, Office of Student Life.

Academic Dishonesty Defined

West Virginia University expects that every member of its academic community shares the historic and traditional commitment to honesty, integrity, and the search for truth. Academic dishonesty is defined to include but is not limited to any of the following:

- **Plagiarism:** To take and pass off as one's own the ideas, writings, artistic products, etc. of someone else; for example, submitting, without appropriate acknowledgment, a report, notebook, speech, outline, theme, thesis, dissertation, or other written, visual, or oral material that has been knowingly obtained or copied in whole or in part, from the work of others, whether such source is published, including (but not limited to) another individual's academic composition, compilation, or other product, or commercially prepared paper.

- **Cheating and dishonest practices** in connection with examinations, papers, and projects, including but not limited to:

- a. Obtaining help from another student during examinations.

- b. Knowingly giving help to another student during examinations, taking an examination or doing academic work for another student, or providing one's own work for another student to copy and submit as his/her own.

- c. The unauthorized use of notes, books, or other sources of information during examinations.

- d. Obtaining without authorization an examination or any part thereof.

- **Forgery, misrepresentation or fraud:**

- a. Forging or altering, or causing to be altered, the record of any grade in a grade book or other educational record.

- b. Use of University documents or instruments of identification with intent to defraud.

- c. Presenting false data or intentionally misrepresenting one's records for admission, registration, or withdrawal from the University or from a University course.

- d. Knowingly presenting false data or intentionally misrepresenting one's records for personal gain.

- e. Knowingly furnishing the results of research projects or experiments for the inclusion in another's work without proper citation.

- f. Knowingly furnishing false statements in any University academic proceeding.

Procedure for Handling Academic Dishonesty Cases

Academic dishonesty includes plagiarism; cheating and dishonest practices in connection with examinations, papers, and projects; and forgery,

misrepresentation, and fraud. Some cases of forgery, misrepresentation, or fraud which occur outside the context of courses or academic requirements may be referred directly to the University Committee on Student Rights and Responsibilities by any member of the University community. In such cases, the University Committee on Student Rights and Responsibilities will arrange a hearing following the procedure outlined in Step 3 within 15 calendar days of receipt of the charges.

Step 1. If a student is charged with academic dishonesty, the instructor will contact the honesty occurs in a college or school other than that in which the student is enrolled, the results of the case shall be reported to the dean of the college or school in which the student involved is enrolled.

Step 2. If the student denies guilt, if the student believes the penalty imposed in Step 1 is unjust, or if the instructor and/or department chairperson determines the penalties available at Step 1 are insufficient for a specific act, the dean of the college or school in which the course is offered shall be notified in writing of the specifics of the case. The dean shall then implement the following steps within 15 calendar days of receipt of notification:

1. Formal notification to the faculty member that the student is appealing the penalties imposed in Step 1, or formal notification to the student and faculty member of the charges and nature of evidence which, if proved, would justify additional action.

2. Opportunity for the student, faculty, and witnesses to respond or present evidence in writing to the charges.

3. Review by the dean of the facts and evidence presented, and a determination of the penalty or action, if any, to be applied.

Step 3. If the student wishes to appeal the decision of the dean, the appeal must reach the University Committee on Student Rights and Responsibilities within 30 calendar days of the student's receipt of the dean's decision. The University Committee on Student Rights and Responsibilities will arrange a hearing within 15 calendar days using the following procedures:

1. All parties involved shall receive written notice of the date, time, and place of the hearing.

2. The student may be advised by a person of his/her choice from within the institution; likewise, the academic officer recommending the additional action may have an advisor from within the institution. Such advisors may consult with, but may not speak on behalf of their advisees, or otherwise participate directly in the proceedings unless they are given specific permission by the University Committee on Student Rights and Responsibilities Chair.

3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.

4. Witnesses may be called by any of the parties involved.

5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of those involved upon written request.

The University Committee on Student Rights and Responsibilities will reach a decision within seven days of the hearing. If the University Committee on Student Rights and Responsibilities finds the student guilty, it will determine the penalty it deems appropriate under the circumstances and inform all parties involved. The penalty imposed cannot be more severe than the penalty imposed by the dean.

Step 4. Only sanctions of suspension or dismissal invoked or upheld by the University Committee on Student Rights and Responsibilities may be appealed to the President or his/her designee. Such appeals must reach the President's Office within 30 calendar days after receipt of written notice of the decision of the University Committee on Student Rights and Responsibilities. The decision of the President or the President's designee is final.

Graduate Admission and Policies

Health Sciences Center Graduate Council

The Health Sciences Center Graduate Council advises the Vice President for Health Sciences. In this role the Council monitors and administers the graduate studies policies of the schools located at the Health Sciences Center.

Application and Admission

Prospective graduate students are urged to initiate application for admission as early as possible. The first step of a student interested in a degree program should be to ask for information from the department, division, school, or college offering the program desired; the reply to such an inquiry will include instructions for applying to the particular program.

In all cases, application must be made for admission to graduate study on standard forms provided by the WVU Office of Admissions and Records. The completed form is to be returned to the Office of Admissions and Records, and must be accompanied by payment of a nonrefundable special service fee of \$25.00. Applicants must at the same time request the registrar or records office of the college of their baccalaureate degree to send an official transcript directly to the Office of Admissions and Records. If other institutions have been attended in the course of undergraduate or graduate study, transcripts should be requested from them as well. No one is admitted to graduate study who does not hold a baccalaureate degree.

If the applicant meets the minimum admission requirements of WVU, a copy of the application is forwarded to the faculty of the program of interest. Any graduate degree program is permitted to set admission requirements which go beyond the minimum admission standards of the University. No one can pursue an advanced degree at WVU unless admitted to the appropriate degree program.

Reapplication

When a student graduates or completes the program for which he/she applied, the student must reapply and be readmitted before taking further course work at WVU. This policy assures that the University is informed of the student's objectives and that he/she is assigned an appropriate advisor. Students will be assessed the application fee for each new application.

When eight years have passed since initial course work, a student must reapply. The application fee will be assessed.

Classification of Graduate Students

Regular: A regular graduate student is a degree-seeking student who meets all the criteria for regular admission to a program of his/her choice. The student must possess a baccalaureate degree from a college or university,

have a grade-point average of at least 2.5 (on a 4.0 scale), have met all the criteria established by the degree program, and be under no requirements to make up deficiencies.

Provisional: A student may be admitted as provisional by any unit when the student possesses a baccalaureate degree but clearly does not meet the criteria for regular admission. The student may have incomplete credentials, deficiencies to make up, or may have an undergraduate scholastic record which shows promise, but less than the 2.5 grade-point average required for regular admission.

Non-Degree: A non-degree student is a student not admitted to a program. Admission as a non-degree student does not guarantee admission to any course or program. To be admitted as a non-degree student, a student must only present evidence of a baccalaureate degree, however the student must obtain a 2.25 grade-point average on the first 12 credit hours of course work and maintain this average as long as enrolled. To be eligible to enter a degree program, the student must maintain a minimum of a 2.75 grade-point average on all course work taken since admission as a graduate student.

Reclassification

Provisional to Regular

- The provisions of a student's provisional status must be specified in the letter of admission.

- To be reclassified as a regular student, a student must meet the provisions stated in the letter of admission and achieve a minimum grade-point average of 2.75 on all course work taken during the provisional period. Individual degree programs may set higher grade-point average requirements.

- No later than the completion of the 18th credit hour, a unit must review the student's record and make a final decision on the student's admission. A student who has met the provisions of admission and achieved the required grade-point average will be reclassified as a regular student. A student who fails to meet the provisions of admission or who fails to achieve the required grade-point average will be suspended, but may be reinstated in order to transfer to another program or to non-degree status. The academic unit must notify the student and the Office of Admissions and Records of its decision.

- Upon notification by the appropriate academic unit, the Office of Admissions and Records will prohibit the registration of all provisional graduate students who have reached the maximum of 18 credit hours. Registration will not be permitted until the student is reclassified as a regular student, an exception is granted by an academic dean, or the student is transferred.

- A student may be admitted as a provisional graduate student more than one time, but not to the same graduate program.

- All credit hours taken since admission as a provisional graduate student or to be applied to a degree count in the 18 credit-hour limit, i.e., undergraduate or graduate credit, P/F, S/U, graded courses, credit by senior petition, and transfer credit.

Regular or Provisional to Non-Degree:

- Regular and provisional students may become non-degree students by choice. This includes students who fail to meet admission or academic standards or who withdraw voluntarily.

- To change a student to non-degree status, the advisor must process a Graduate Studies Transfer/Status form through the Health Sciences Center Graduate Programs Office.

Non-Degree to Regular or Provisional:

- Non-degree students who later wish to become degree candidates must transfer and present all the credentials required by the degree program. This requires the processing of a Graduate Studies Transfer/Status form by the student's advisor through the HSC Graduate Programs Office.

- For admission to a degree program, a non-degree student must have achieved a minimum grade-point average of 2.75 on all course work taken since admission as a graduate student.

Graduate Record and Other Examinations

Many programs at WVU require Graduate Record Examination (GRE) scores from all applicants, but in no program are they the sole criterion for admission. Some programs require both the general aptitude and the appropriate advanced test before considering an applicant for admission. All departments in the School of Medicine and School of Pharmacy require that a student take the GRE test.

International Admission

West Virginia University is authorized under federal law to enroll nonimmigrant foreign nationals as students. International students wishing to enroll as undergraduate students at WVU must comply with the stated academic requirements for admission and with certain additional academic and nonacademic requirements.

April 1 has been established as the application deadline for the fall semester. International students applying for admission to West Virginia University must submit the following:

- Completed International Student Admission Application.
- Application service fee.
- Results of the Test of English as a Foreign Language (TOEFL). TOEFL results must be sent to WVU directly from the Educational Testing Service (ETS).
- Original or certified copies of an official academic record in original language of issue.
- Original or certified copy of official certification of degree in original language of issue.
- Official English translations of academic record and certification of degree.

International applicants who have completed high school in the United States may also be required to submit ACT or SAT results.

The above items should be sent to Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009 and must be received by the application deadline. Wherever possible, all application material should be submitted at one time (TOEFL scores and official transcripts from United States institutions should be requested so that all material arrives at West Virginia University close to the same date). Incomplete applications can not be guaranteed consideration for the desired semester.

Required Academic Credentials

Applicants must submit academic records from all secondary and post-secondary institutions attended regardless of whether or not grades were issued or credit was received. WVU requires that original or certified copies of the original academic documents from non-United States institutions be submitted. The required documents include the official academic record (showing course titles, dates taken and grades received), and diploma(s) or certificate (s) showing degree awarded. These documents must be in the original language of issue. Official English translations must be provided as well as the official academic credentials in the original language. Any translation of a document must be a literal, word-for-word translation and must indicate actual grades received, not an interpretation of the grades. Applicants who have studied in the United States are required to have the institution(s) in the United States send their official transcript directly to WVU.

Documents received by WVU can not be returned to the applicant. It is therefore recommended that students who receive only one original copy of their credentials submit certified copies with their application.

English Language Proficiency

All applicants whose first language is not English must provide proof of English language proficiency. WVU uses the Test of English as a Foreign Language (TOEFL) as the measure of English language proficiency. A score of 550 on the TOEFL is the minimum required. Applicants must make arrangements to take the TOEFL well in advance of the desired date of enrollment at WVU. Information about registration for the TOEFL can be obtained by writing to the Educational Testing Service (ETS), P.O. Box 6154, Princeton, NJ 08541-615, USA, or by contacting the local office of the United States Information Service (USIS). Applicants who have received a high school diploma or a bachelor's degree in the United States need not submit TOEFL results.

In some cases, it may be possible to consider applications for students who lack adequate TOEFL scores, to enroll in the West Virginia University intensive English program. Such applicants must contact the intensive English program and directly and notify the Office of Admissions and Records of their intentions. Admission to the intensive English program does not guarantee admission to the university or to a specific program of study. Inquiries for the intensive English program should be directed to the Intensive English Program, Department of Foreign Languages, West Virginia University, P.O. Box 6298, Morgantown, WV 26506-6298

Financial Documents and Student Visa

International students requiring a form I-20 or IAP-66 for student or exchange visa must provide certification of adequate financial resources. Generally, the student must provide an official bank statement showing the availability of the appropriate funds. If a private sponsor will be the student's source of support, the sponsor must submit a letter showing intent to sponsor and an official bank statement showing the availability of the appropriate funds. Other forms of support could include sponsorship certifications from the student's government or sponsoring agency. In all cases, original or certified copies of financial/sponsorship documents must be submitted before the I-20 or IAP-66 can be issued.

Intrauniversity Transfers

To transfer from one school/department to another, a student may initiate a transfer request by contacting the Health Sciences Center Graduate Programs Office or his/her advisor. The advisor must contact the Health Sciences Center Graduate Programs Office, which will complete the transfer.

Credits

Credit toward a graduate degree may be obtained only for courses listed in the graduate catalog and numbered 200–499, in which the grade earned is A, B, C, or S. No course in which the grade earned is D, P, F, or U can be counted toward a graduate degree.

Employed Graduate Students

Graduate students will be required by their advisors to limit their credit loads in proportion to the outside service rendered and the time available for graduate study. In general, persons in full-time service to the University, or other employer, will be advised to enroll for no more than six hours of work in any one semester and those in half-time service for no more than 12 hours. Maximum credit loads may be less for employed graduate students in some academic colleges, schools, and departments.

Non-Degree Graduate Students

A non-degree graduate student may accumulate unlimited graduate credit hours, but if the student is later admitted to a degree program, the faculty of that program will decide whether or not any credit earned as a non-degree student may be applied to the degree. Under no circumstances may a non-degree student apply more than 12 hours of credit toward a degree.

Transfer or Transient Credit

To apply graduate-level credits from other institutions toward a master's degree at WVU, students must get permission from the individual schools or colleges. The standardized transient application form must be approved and signed by a unit chairperson or designate, prior to the student enrolling in the course(s) to be transferred to WVU. The school or department submits the approved form to the Health Sciences Graduate Programs Office for final approval and submission to Admissions and Records. It is the students responsibility to see that Admissions and Records gets an original transcript from the other institution. Only credit earned at institutions accredited at the graduate level may be transferred.

Graduate courses taken elsewhere will not be approved for transfer credit unless the transient application form was approved before enrolling in them. When a school or department approves the form, it is sent to the Health Sciences Center Graduate Programs Office for approval. A maximum of 12 semester hours from other institutions will be accepted for credit at WVU in master's programs requiring 30 to 41 semester hours. Eighteen semester hours will be accepted for master's degree programs requiring 42 or more semester hours. Individual graduate programs may accept fewer credit hours.

Time Limits

Master's Degree: All requirements for a master's degree must be completed within eight years preceding the student's graduation.

Doctoral Degree: The doctorate is a research or performance degree and does not depend on the accumulation of credit hours. The three requirements of the degree are admission to candidacy, residency, and completion and defense of the dissertation. The degree signifies that the holder has the competence to function independently at the highest level of endeavor in the chosen profession. Hence, the number of years involved in attaining or retaining competency cannot be readily specified. Rather, it is important that the doctoral student's competency be assessed and verified in a reasonable period of time prior to conferral of the degree.

The qualifying examination is the method of assessing whether the student has attained sufficient knowledge of the discipline and supporting fields in order to undertake independent research or practice. It is expected that the examination will occur after all course work has been completed and language or other requirements satisfied, and it consists of a series of examinations covering all areas specified in the plan of study. After the component parts of the qualifying examination have been successfully passed, the student is admitted to candidacy for the degree. It is sometimes called the candidacy examination because no one can be called a doctoral candidate until this first requirement for the degree has been met.

Because the qualifying examination attests to the academic competence of the student who is about to become an independent researcher or practitioner, the examination should not precede the degree by too long a period of time. Consequently, doctoral candidates are allowed no more than five years in which to complete remaining degree requirements. In the event a student fails to complete the doctorate within five years after admission to candidacy, an extension of time can be obtained only by repeating the qualifying examination, and meeting any other requirements specified by the student's committee.

Contractual Nature of Graduate Study

The student's rights, privileges, obligations, and responsibilities are contained in the graduate catalog, the plan of study, and, if research is one of the degree program requirements, the prospectus. Although not contracts in the formal legal sense, they are agreements between the University and a student for the accomplishment of planned educational goals.

Plan of Study

The plan of study is submitted within the first academic year (18 hours for a master's and 30 hours for doctorate/after thesis committee for nursing) to the Health Sciences Center Graduate Programs Office. The plan of study is subject to approval and is made a part of the student's record. It then becomes a formal agreement between student and program faculty as to the conditions which must be met for completion of the degree requirements. Any subsequent changes in plan of study (or prospectus) can be made only through mutual agreement, with a memorandum of changes sent to the Health Sciences Center Graduate Programs Office.

Records

The Health Sciences Center Graduate Programs Office maintains all records for monitoring student progress and for certifying students for graduation. Among these records are plans of study (subject to chairperson of Health Sciences Center Graduate Council's approval); graduate committees (subject to school dean's or designate's approval and approval of the Health Sciences Center Graduate Programs Office); grades and grade modifications.

Grading

Pass/fail grading is not applicable to the course work for a graduate degree. A graduate student may register for any course (1–499) on a pass/fail basis only if the course involved is not included in the student's plan of study and does not count toward a graduate degree. The selection of a course for pass/fail grading must be made at registration and may not be changed after the close of the registration period. A student who, having taken a course on a pass/fail basis, later decides to include the course as part of a degree program must re-register for the course on a graded (A, B, C, D, or F) basis.

Incompletes

The grade of I is given when the instructor believes the course work is unavoidably incomplete or that a supplementary examination is justifiable. The grade of I must be removed within one academic year or made a permanent incomplete. Grade modification forms are to be signed by the instructor of the course and then forwarded to the Health Sciences Center Graduate Programs Office for processing.

Grade changes other than I to a letter grade must be accompanied by an explanatory memo.

Dissertation Procedures

Procedural rules for dissertations and theses are found in the *WVU Graduate Catalog*.

Dismissal

Dismissal from a graduate or professional program may be based on program and/or professional performance standards other than cumulative grade-point average. Reasons must be based on catalog and other written documents describing academic and professional performance standards and expectations.

Procedures

1. Counseling by departmental committee or representative as soon as possible after discovery of problem.

2. Second counseling by departmental committee or representative after opportunity to improve if performance is not changed sufficiently.

3. Formal review of student status by department or program committee. The formal review will result in one of the following actions:

- Student retained or recommended for dismissal.
- Counseling or remediation steps required as a condition of retention.
- Appeals available if dismissal recommended.

4. A dismissal decision by the dean of the student's school or college may

be appealed to the University Conduct/Appeals Committee which will hold a hearing using the following procedures:

- The student may be advised by a person of his/her choice to assure due process protection not to affect the outcome of the proceedings. The advisor may consult with the student but shall not speak on behalf of the student or participate directly unless granted specific permission by the University Conduct/Appeals Committee.

- The formal rules of evidence do not apply.

- The administrative procedure is not adversarial in nature.

- Witnesses may be presented and examined under oath.

- An accurate record of the procedure is to be kept. The student may request a transcript of the proceedings at the student's expense.

- An academic appeals committee has the right to counsel in those proceedings in which the student has retained counsel. Such counsel may not speak on behalf of the institution or otherwise participate directly in the proceedings.

5. A decision for dismissal must be reviewed by the appropriate academic Vice President who may confirm or remand the recommendation with specific instructions.

6. Recommendation for dismissal confirmed by the appropriate academic Vice President may be appealed to the President. The decision of the President is final.

Students' Committees

Doctoral dissertation committees will consist of no fewer than five members, the majority of whom, including the chairperson, will be regular graduate faculty. No more than one person may be a non-member. At least one member of every doctoral committee must be from a department other than the one in which the student is seeking a degree.

Master's committees of programs requiring a thesis will consist of no fewer than three members, the majority of whom will be regular graduate faculty, including the chairperson. No more than one person may be a non-member.

Master's committees of programs not requiring a thesis will consist of no fewer than three members, one of which must be a regular graduate faculty member. No more than one person may be a non-member, and the non-member cannot chair or advise.

Committee approval must be obtained prior to the second semester for a master's degree and prior to the fourth semester for the doctorate. Committee approval for the nursing program is after the third semester.

Committee Approval

All graduate committees are subject to the approval of the school dean or designate and the Health Sciences Center Graduate Programs Office.

Fees

All West Virginia University fees are subject to change. All fees are due and payable to the Controller on the days of registration. Students must pay fees before registration is accepted. Completion of arrangements with the Controller's Office for payment from officially accepted scholarships, loan funds, grants, or contracts shall be considered sufficient for acceptance of registration. Fees paid after regular registration must be paid to the cashier in Stewart Hall.

All students are expected to register on days set apart for registration at the beginning of each semester or summer session of the University. No student will be permitted to register at the University after the eighth day of a semester or the fourth calendar day of the summer sessions or a single summer session. Days are counted from the first day of registration.

Any student failing to complete registration on regular registration days is subject to the Late Registration Fee of \$20.00. Registering students pay the fees shown in the fee charts, plus special fees and deposits as required. No degree is conferred upon any candidate and no transcripts are issued to any student before payment is made of all tuition, fees, and other indebtedness to any unit of the University. It is the policy of West Virginia University to place on restriction students who have outstanding debts to a unit or units of the University. The restriction may include, but is not limited to, the withholding of a student's registration, a student's diploma, or a student's transcript.

Special Fees

Application for Undergraduate Admission

(Resident) \$15.00

(Nonresident) 35.00

Application for Admission (Dentistry and Medicine) 30.00

Application for Admission (Law or Graduate Studies) 35.00

Diploma Replacement 20.00

Examination for Advanced Standing 35.00

Examination for Entrance Credit, per unit 1.00

General Educational Development Tests (high school level) 15.00

(If the applicant applies for admission to and registers in WVU within twelve months of the date of qualifying for the test, a \$10.00 credit shall be established for the applicant.)

Graduation 20.00

(Payable by all students at the beginning of the semester or session in which they expect to receive their degrees.)

Late Registration (non refundable) 30.00

For graduate students not otherwise enrolled at time of final exam. . 50.00

Professional Engineering Degree (includes \$20 Graduation Fee) 35.00

Program Reactivation Fee (Graduate Students) 35.00

Reinstatement of Student Dropped from the Rolls 20.00

Student Identification Card Replacement 10.00

Student's Record Fee 5.00

Official Transcript 5.00

Official Letter 5.00

(Statement of Degree Letter, Grade-Point Average Letter) 8.00

Priority Service (Transcript/Letter) 8.00

Financial Aid

Students interested in financial assistance must file a Financial Aid Form (FAF) with College Scholarship Service, Box 2700, Princeton, NJ 08540. Forms are available at high schools, from the College Scholarship Service, or the WVU Financial Aid Office. Forms are dated for the appropriate academic year.

Your Guide to Financial Aid-West Virginia University is available at the WVU Financial Aid Offices, Mountainlair, Downtown Campus, and 104 Health Sciences Center. The guide describes available financial aid, application procedures, and estimated educational expenses for attending WVU.

Fees for Off-Campus Courses

Fees for credit hours for off-campus courses are the same as those charged students enrolled in on-campus courses. Off-campus students do not pay the Daily Athenaeum Fee, the Radio Station Fee, or the Mountainlair Construction Fee. However, all students must pay a \$50.00 course fee for each off-campus course taken except for courses offered by the College of Business and Economics, which is \$80.00 per course.

Laboratory Fees

Consult specific departmental sections of this catalog concerning non-refundable deposits and microscope rental fees. Please consult the current schedule of courses for courses with laboratory fees.

Non-Sufficient Funds Check Policy/Service Charge

Payments of tuition, fees, and other charges by check are subject to WVU's Non-Sufficient Funds Check Policy. A copy of the policy is available in the Bursar's Office. A service charge of \$15.00 is collected on each check returned unpaid by the bank upon which it was drawn. The service charge on unpaid returned checks is subject to change in accordance with state law.

Identification Card

An identification card is issued to each full-time student when fees are paid in full. Certain part-time students can be eligible for an identification card when the appropriate fees are paid in full. It admits the owner to certain University athletic events, various activities of student administration, Health Service, and Mountainlair. Confiscation will result from misuse. The University reserves the right to refuse reissuance of an identification card.

Summer Tuition and Fees

<i>Undergraduate Students</i>	<i>Resident</i>	<i>Nonresident</i>
Tuition, per semester hour	\$66.00	\$208.00
Daily Athenaeum Fee*	2.00	2.00
Radio Station Fee*	2.00	2.00
Health, Counseling, and Program Services Fee	36.00	36.00
Mountainlair Construction Fee, per six week summer session or any portion thereof*	19.00	19.00
Student Affairs Fee	10.00	10.00
Transportation Fee	17.00	17.00

*Fee required of all students. (Non refundable unless student withdraws officially before the close of general registration.)

Estimated Expenses for Health Sciences Center Programs

These estimated expenses are accurate as of February 1, 1993 and are subject to change. For current accurate tuition costs, please call Admissions and Records at 1-800-344-WVU1. Tuition and registration fees are the same for both semesters. Tuition and registration fees are per semester; other fees are per year.

School and Division	Tuition and Registration*		Instruments	Lab coats, Uniforms, etc.	Books	TOTALS	
	Resident	Nonresident				Residents	Nonresidents
Dentistry							
First Year	\$2,238.00	\$5,864.00	\$5,151.00	\$100.00	\$670.00	\$8,159.00	\$11,785.00
First Summer	654.00	1,509.00	1,300.00	—	300.00	2,254.00	3,109.00
Second Year	2,238.00	5,864.00	2,191.00	100.00	615.00	5,144.00	8,770.00
Second Summer	654.00	1,509.00	640.00	—	—	1,294.00	2,149.00
Third Year	2,238.00	5,864.00	891.00	50.00	155.00	3,334.00	6,960.00
Third Summer	654.00	1,509.00	140.00	—	—	794.00	1,649.00
Fourth Year	2,238.00	5,864.00	891.00	—	—	3,129.00	6,755.00
Dental Hygiene							
Freshman	1,300.00	3,943.00	285.00	25.00	250.00	1,860.00	4,503.00
Sophomore	1,300.00	3,943.00	1,000.00	50.00	255.00	2,605.00	5,248.00
Junior	1,300.00	3,943.00	425.00	100.00	425.00	2,250.00	4,893.00
Senior	1,300.00	3,943.00	200.00	100.00	225.00	1,825.00	4,468.00
Medicine							
First Year	3,840.00	9,378.00	520.00	642.00	950.00	5,952.00	11,490.00
Second Year	3,840.00	9,378.00	—	200.00	800.00	4,840.00	10,378.00
Third Year	3,840.00	9,378.00	—	100.00	450.00	4,390.00	9,928.00
Third Year Summer	52.00	52.00	—	200.00	—	252.00	252.00
Fourth Year	3,840.00	9,378.00	—	—	100.00	3,940.00	9,478.00
Fourth Year Summer	26.00	26.00	—	—	—	26.00	26.00
HSC Graduate Programs							
	1,399.00	4,099.00					

Estimated Expenses for Health Sciences Center Programs continued

School and Division	Tuition and Registration*		Instruments	Lab coats, Uniforms, etc.	Books	Totals	
	Resident	Nonresident				Residents	Nonresidents
Medical Technology							
Junior	\$1,300.00	\$3,943.00	\$212.00	\$250.00	\$597.00	\$2,359.00	\$5,002.00
Summer	236.00	656.00	—	250.00	175.00	661.00	1,081.00
Senior	1,300.00	3,943.00	—	265.00	—	1,565.00	4,208.00
Physical Therapy							
Summer	26.00	26.00	25.00	90.00	150.00	291.00	291.00
Junior	1,300.00	3,943.00	90.00	—	1,150.00	2,540.00	5,183.00
Summer Rotation	52.00	52.00	—	—	—	52.00	52.00
Senior	1,300.00	3,943.00	—	—	1,150.00	2,450.00	5,093.00
Summer Rotation	52.00	52.00	—	—	—	52.00	52.00
Fall	68.00	68.00	—	—	—	68.00	68.00
Nursing							
Sophomore	1,300.00	3,943.00	40.00	200.00	750.00	2,290.00	4,933.00
Summer	354.00	984.00	—	50.00	150.00	554.00	1,184.00
Junior	1,300.00	3,943.00	—	50.00	300.00	1,650.00	4,293.00
Senior	1,300.00	3,943.00	—	—	300.00	1,600.00	4,243.00
Pharmacy							
Third Year	1,532.00	4,350.00	—	65.00	450.00	2,047.00	4,865.00
Fourth Year	1,532.00	4,350.00	—	—	250.00	1,782.00	4,600.00
Summer	944.00	2,624.00	—	—	—	944.00	2,624.00
Fifth Year	1,532.00	4,350.00	—	—	200.00	1,732.00	4,550.00
Graduate Pharmacy	1,556.00	4,499.00	—	—	—	—	—

*Includes (Graduate) \$474.00 (Pharmacy \$606.00) Resident and \$1,854.00 (Pharmacy \$2,154.00) Nonresident or (Undergraduate) \$420.00 (Pharmacy \$577.00) Resident and \$1,798.00 (Pharmacy \$2,005.00) Health Professions Education Fee.

Refund of Fees

A student who officially withdraws from the University or goes from full-time to part-time status within the refund period is eligible for a refund of tuition and fees. Every effort is made to process refunds within 30 days.

To withdraw from the University officially and receive a refund, a student must apply at the Office of Student Life in E. Moore Hall. Tuition, special fees, the optional health service fee, and certain miscellaneous fees are refundable based upon the date of withdrawal and student status.* Lab fees are refundable during the first week of classes only, based upon student status.* Miscellaneous fees that **are not refundable** include the application fee, transcript fee, graduation fee (if graduating), late registration/payment fee, and reinstatement fee.

Exceptions: Students entering the armed services of the United States may be granted full refund of refundable fees (but no course credit) if the call comes before the end of the first three-fourths of the semester. If the call comes after that, full credit for courses may be granted if the student has passing grades at the time of departure.

Students withdrawn due to catastrophic illness or death will be provided a refund as approved by the Dean of Student Life or his/her designee.

To receive a refund for a dropped course, a student must apply at the Office of Admissions and Records. If a student drops below full-time status (12 hours for undergraduates or nine for graduates), tuition, special, and certain miscellaneous fees are refundable based upon the date of the course drops. The optional health fee, application fee, transcript fee, graduation fee, late registration/payment fee, and reinstatement fee are not refundable.

Refund Schedules

Fall/Spring Semesters

Refund Period	BOT	HEA	Refund Period	BOT	HEA
1st Week	90%	90%	5th Week	50%	60%
2nd Week	90%	80%	6th Week	50%	60%
3rd Week	70%	80%	7th/8th Week	—	50%
4th Week	70%	70%	9th Week	—	40%
Subsequent Weeks	0	0			

Refunds for summer sessions are published in the respective *Schedules of Courses*.

*Note: Students who are enrolled for their first semester at WVU or who received a full refund for the previous semester and who received Title IV aid receive refunds according to federal regulations, which require refunds to be figured using both state (BOT Series #22) and statutory pro rata (Higher Education Amendments of 1992) calculations. After figuring both refunds, the calculation that provides the larger refund is given.

Residency Policy

Classification Of Students for Admission and Fee Purposes

Section 2. Classification for Admission and Fee Purposes

2.1 Students enrolling in a West Virginia public institution of higher education shall be assigned a residency status for admission, tuition, and fee purposes by the institutional officer designated by the president. In determining residency classification, the issue is essentially one of domicile. In general, the domicile of a person is that person's true, fixed, permanent home and place of habitation. The decision shall be based upon information furnished by the student and all other relevant information. The designated officer is authorized to require such written documents, affidavits, verifications, or other evidence as is deemed necessary to establish the domicile of a student. The burden of establishing domicile for admission, tuition, and fee purposes is upon the student.

2.2 If there is a question as to domicile, the matter must be brought to the attention of the designated officer at least two weeks prior to the deadline for the payment of tuition and fees. Any student found to have made a false or misleading statement concerning domicile shall be subject to institutional disciplinary action and will be charged the nonresident fees for each academic term theretofore attended.

2.3 The previous determination of a student's domiciliary status by one institution is not conclusive or binding when subsequently considered by another institution; however, assuming no change of facts, the prior judgment should be given strong consideration in the interest of consistency. Out-of-state students being assessed resident tuition and fees as a result of a reciprocity agreement may not transfer said reciprocity status to another public institution in West Virginia.

Section 3. Residence Determined by Domicile

3.1 Domicile within the State means adoption of the State as the fixed permanent home and involves personal presence within the State with no intent on the part of the applicant or, in the case of a dependent student, the applicant's parent(s) to return to another state or country. Residing with relatives (other than parent(s)/legal guardian) does not, in and of itself, cause the student to attain domicile in this State for admission or fee payment purposes. West Virginia domicile may be established upon the completion of at least twelve months of continued presence within the State prior to the date of registration, provided that such twelve months' presence is not primarily for the purpose of attendance at any institution of higher education in West Virginia.

Establishment of West Virginia domicile with less than twelve months' presence prior to the date of registration must be supported by evidence of positive and unequivocal action. In determining domicile, institutional officials should give consideration to such factors as the ownership or lease of a permanently occupied home in West Virginia, full-time employment within the State, paying West Virginia property tax, filing West Virginia income tax returns, registering of motor vehicles in West Virginia, possessing a valid West Virginia driver's license, and marriage to a person already domiciled in West Virginia. Proof of a number of these actions shall be considered only as evidence which may be used in determining whether or not a domicile has been established.

Factors militating against the establishment of West Virginia domicile might include such considerations as the student not being self-supporting, being claimed as a dependent on federal or state income tax returns or the parents' health insurance policy if the parents reside out of state, receiving financial assistance from state student aid programs in other states, and leaving the State when school is not in session.

Section 4. Dependency Status

4.1 A dependent student is one who is listed as a dependent on the federal or state income tax return of his/her parent(s) or legal guardian or who receives major financial support from that person. Such a student maintains the same domicile as that of the parent(s) or legal guardian. In the event the parents are divorced or legally separated, the dependent student takes the domicile of the parent with whom he/she lives or to whom he/she has been assigned by court order. However, a dependent student who enrolls and is properly classified as an in-state student maintains that classification as long as the enrollment is continuous and that student does not attain independence and establish domicile in another state.

4.2 A nonresident student who becomes independent while a student at an institution of higher education in West Virginia does not, by reason of such independence alone, attain domicile in this State for admission or fee payment purposes.

Section 5. Change of Residence

5.1 A person who has been classified as an out-of-state student and who seeks resident status in West Virginia must assume the burden of providing conclusive evidence that he/she has established domicile in West Virginia with the intention of making the permanent home in this State. The intent to remain indefinitely in West Virginia is evidenced not only by a person's statements, but also by that person's actions. In making a determination regarding a request for change in residency status, the designated institutional officer shall consider those actions referenced in Section 2 above. The change in classification, if deemed to be warranted, shall be effective for the academic term or semester next following the date of the application for reclassification.

Section 6. Military

6.1 An individual who is on full-time active military service in another state or foreign country or an employee of the federal government shall be classified as an in-state student for the purpose of payment of tuition and fees, provided that the person established a domicile in West Virginia prior to entrance into federal service, entered the federal service from West Virginia, and has at no time while in federal service claimed or established a domicile in another state. Sworn statements attesting to these conditions may be required. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

6.2 Persons assigned to full-time active military service in West Virginia and residing in the State shall be classified as in-state students for tuition and fee purposes. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

Section 7. Aliens

7.1 An alien who is in the United States on a resident visa or who has filed a petition for naturalization in the naturalization court, and who has established a bona fide domicile in West Virginia as defined in Section 3 may be eligible for in-state residency classification, provided that person is in the State for purposes other than to attempt to qualify for residency status as a student. Political refugees admitted into the United States for an indefinite period of time and without restriction on the maintenance of a foreign domicile may be eligible for an in-state classification as defined in Section 3. Any person holding a student or other temporary visa cannot be classified as an in-state student.

Section 8. Former Domicile

8.1 A person who was formerly domiciled in the state of West Virginia and who would have been eligible for an in-state residency classification at the time of his/her departure from the state may be immediately eligible for classification as a West Virginia resident provided such person returns to West Virginia within a one-year period of time and satisfies the conditions of Section 3 regarding proof of domicile and intent to remain permanently in West Virginia.

Section 9. Appeals

At a minimum, such procedures shall provide that:

9.1 Each institution shall establish procedures which provide opportunities for students to appeal residency classification decisions with which they disagree. The decision of the designated institutional official charged with the determination of residency classification may be appealed in accordance with appropriate procedures established by the president of the institution. At a minimum, such procedures shall provide that:

9.1.1 An institutional committee on residency appeals will be established to receive and act on appeals of residency decisions made by the designated institutional official charged with making residency determinations.

9.1.1a The institutional committee on residency shall be comprised of members of the institutional community, including faculty and student representatives, and whose number shall be at least three, in any event, an odd number. The student representative(s) shall be appointed by the president of the institutional student government association while the faculty representative(s) shall be selected by the campus-wide representative faculty organization.

9.1.1b The student contesting a residency decision shall be given the opportunity to appear before the institutional committee on residency appeals. If the appellant cannot appear when the committee convenes a meeting, the appellant has the option of allowing committee members to make a decision on the basis of written materials pertaining to the appeal or waiting until the next committee meeting.

9.1.2 The residency appeal procedures will include provisions for appeal of the decision of the institutional committee on residency appeals to the president of the institution.

9.1.3 Residency appeals shall end at the institutional level.

School of Dentistry

Robert N. Moore, D.D.S., Ph.D., Ed.D.; Dean

William R. McCutcheon, D.D.S.; Associate Dean, Academic and Postdoctoral Affairs

Henry J. Bianco, D.D.S., Associate Dean, Clinical Affairs and Facilities

James E. Overberger, D.D.S.; Associate Dean, Continuing Education

Frank H. Stevens, D.D.S.; Assistant Dean, Alumni /Public Affairs and Recruitment

Degrees Offered:

D.D.S. in Dentistry

M.S. in Dental Specialties

M.S. in Dental Hygiene; B.S. in Dental Hygiene

Historical Background

The School of Dentistry was established by an act of the West Virginia Legislature on March 9, 1951, and the first class began studies in September, 1957. The 23 members of that class were graduated in 1961, receiving the first dental degrees awarded in West Virginia. More than 200 students are now enrolled in the accredited dental program. In September, 1961, the first students were enrolled in the school's degree program in dental hygiene and were graduated in 1965.

Mission

- To provide the people of West Virginia with an oral health center for education, research and service activities;
- To contribute to and improve the dental health of all people, especially the citizens of West Virginia.

The School of Dentistry of West Virginia University offers degrees of doctor of dental surgery, masters of science in dental specialties and dental hygiene, and bachelor of science in dental hygiene. The Department of Oral and Maxillofacial Surgery offers one four-year residency. Seven general practice residencies and three advanced education in general dentistry residencies are also offered. Programs leading to the master of science and doctor of philosophy degrees are available in the associated basic sciences. Continuing education courses for dentists and auxiliaries are offered throughout the year on a wide variety of dental topics.

Accreditation

All programs are accredited by the Commission on Dental Accreditation of the American Dental Association.

Administration

Administration of the School of Dentistry is the responsibility of the dean. He is aided in this function by three associate deans, one assistant dean, two directors, and the clinical and Health Sciences Center chairpersons. This administrative group, the Faculty Council, serves in an advisory capacity to the dean in carrying out the established policies of the School of Dentistry and of the University.

Dental Clinic

Clinical training and experience constitute a major part of the curriculum for dental and dental hygiene students. Facilities for dental and dental hygiene students include 160 treatment cubicles and all necessary related laboratories. The students treat their assigned patients under close supervision of faculty and receive practical experience while rendering service to thousands of patients annually.

Books and Instruments

Dental students are required to obtain necessary textbooks for the scheduled courses and special instruments for use in the various laboratories and clinics. Lists of approved instruments and books will be provided at the time of registration, and these supplies will be made available through University services. Official authorization is essential in the purchase of all instruments and books used in dental courses. All dental students must maintain a library of required textbooks through graduation. Used instruments and equipment are not acceptable.

Organizations

American Student Dental Association. Predoctoral and advanced education dental students are eligible to become members of the American Student Dental Association. Membership provides for student membership in the American Dental Association.

American Association of Dental Research. All dental and auxiliary students, including advanced education students, are eligible to become student members of the American Association of Dental Research during the period of enrollment in the School of Dentistry.

American Association of Dental Schools. All dental and auxiliary students, including advanced education students, are eligible to become student members of the American Association of Dental Schools during the period of enrollment in the School of Dentistry.

American Association of Women Dentists. The objectives and purposes of the West Virginia University School of Dentistry Chapter of the American Association of Women Dentists are to offer opportunities for personal growth through association with women in our profession, support the goals of the American Association of Women Dentists, aid in the advancement of women in dentistry, promote professional support and cooperation among its members, and promote the fundamentals of good oral health.

Academy of Dentistry for the Handicapped. The Academy of Dentistry for the Handicapped is an international organization for dental students and hygiene students interested in management and treatment of special care patients. Community services are provided by assisting with Special Olympics and presenting disability awareness programs to area grade schools. Guest speakers are sponsored on topics such as: "Managing the Hearing Impaired Patient in the Dental Office," "Use of Restraint in Treating Handicapped Patients," and "Child Abuse and Neglect in Special Needs Children."

WVU School of Dentistry Alumni Association. In a series of meetings held during May, 1961, the first senior class of the School of Dentistry established the WVU School of Dentistry Alumni Association. The association promotes the educational program of the School of Dentistry. Full membership is

extended to all graduates of the school, and associate memberships are available to others interested in the aims of the association.

Omicron Kappa Upsilon. On February 6, 1961, the Alpha Beta Chapter of Omicron Kappa Upsilon, national honorary dental society, was chartered at the School of Dentistry. Student membership is limited to 12 percent of each senior class. Candidates are from the academically superior 20 percent.

Dental Fraternities. Chapters of two national dental fraternities, Delta Sigma Delta and Psi Omega, are active at the School.

The American Dental Hygienists' Association is the official organization representing the dental hygiene profession. Student dental hygienists have the opportunity of student membership in the association.

Sigma Phi Alpha is the national dental hygiene honorary society. Student membership is limited to 10 percent of each graduating class. Candidates are selected on the basis of scholarship, character, and potential as a dental hygienist.

Doctor of Dental Surgery (D.D.S.)

The profession of dentistry offers many career opportunities. In addition to the general practice of dentistry, specialty practice areas may be pursued by further study. The fields of dental education and research provide the opportunity for satisfying and interesting careers. Men and women entering the dental health care delivery system find that they play an important role in the exciting and challenging world of the modern health sciences.

Because of the large number of applicants and limited openings available, preference in admissions is given to qualified West Virginians although outstanding nonresident applicants are considered. Nonresident applicants should have a grade-point average of 3.0 or above and an average score on the Academic and PAT sections of the Dental Admission Test of at least 15–15. Economically or culturally disadvantaged students (especially if they are West Virginia residents) are encouraged to apply.

Admission Requirements

Admission to the WVU School of Dentistry is contingent upon satisfactory completion of all admission requirements, appropriate completion of all application instructions, submission of all transcripts from each college attended, personal interview, and satisfactory completion of all courses taken before the time of registration in dental school (includes courses taken during the summer session immediately preceding initial enrollment).

Application for admission in the fall of 1996 should be made promptly upon completion of the 1994–95 school year, even if the applicant has not completed all the requirements as listed.

Applicants for admission must present evidence of having successfully completed three or more academic years of work in liberal arts in an accredited college. The prerequisites for admission include:

	Semester Hours
English Composition and Rhetoric, or equivalent	6
Zoology or Biology (with laboratory)	8
Inorganic Chemistry (with laboratory)	8
Organic Chemistry (with laboratory)	8
Physics (with laboratory)	8

Courses in comparative anatomy, embryology, and biochemistry are strongly recommended. In addition, courses in the humanities and the social sciences are suggested in order to acquire a broadened intellectual background for both the study and practice of dentistry.

The School of Dentistry participates in the American Association of Dental Schools Application Service (AADSAS). All applications are processed by that organization. Application request cards are available at the Office of Admissions and Records, 1170 Health Sciences North, P.O. Box 9815, Robert C. Byrd Health Sciences Center of WVU, Morgantown, WV 26506-9815. Request cards should be submitted to AADSAS as promptly as possible. The deadline for submission of a completed AADSAS application to the AADSAS office, for admission to the West Virginia University School of Dentistry, is April 1. This deadline is deliberately and explicitly discussed in the AADSAS instruction booklet; applicants should review them carefully. Since deadline dates are so important, you are strongly urged to give this part of the application procedure your strict attention.

Each applicant is required to complete the Dental Admission Test satisfactorily. The test should be taken in April before making application in June. This test is given at testing centers throughout the United States and its possessions, and in Canada. Application cards may be secured by writing to: Division of Testing, Council on Dental Education, 211 E. Chicago Ave., Chicago, IL 60611.

Final acceptance of a student is contingent upon satisfactory completion of all requirements.

Degree Requirements

Candidates for graduation are recommended by the faculty of the School of Dentistry to the Board of Trustees for its approval and for the conferring of the degree of doctor of dental surgery (D.D.S.), provided they fully meet the following conditions:

- Shall have been in regular attendance in the School of Dentistry for the academic period prescribed for each student.
- Shall have completed the prescribed curriculum for each of the academic sessions.
- Shall have shown good moral character and shall have demonstrated a sense of professional responsibility in the performance of all assignments as a student.
- Shall have met in full all financial obligations to the University.

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession.

Curriculum

The basic required courses in the curriculum are presented throughout eight semesters and four summer sessions. However, students may qualify to receive their diploma at the May convocation of their fourth year. During this time all students are enrolled in courses designed primarily to prepare them for the general practice of dentistry. Throughout the program overall student

progress is continually monitored by the Committee on Academic Standards. Upon satisfactory completion of the first semester of the third year, the student is provided the opportunity to indicate a specific interest in a fourth-year curriculum track. Available tracks are the general practice track, basic biologic science track, specific clinical interest track, and rural practice track. Upon satisfactory completion of the second semester of the third year, the faculty advisor and the student prepare a specific individualized curriculum for the fourth year. This aspect of the dental curriculum provides the opportunity for the student to pursue areas of special interest through the appropriate track, while continuing to develop competency in all clinical disciplines. In addition to the required courses, fourth-year students are required to register for at least one hour of electives during each semester.

At the present time, a number of state boards of dentistry require evidence of participation in continuing education for license renewal. In addition, a significant number of state associations require similar evidence for continued membership in good standing. Consequently, fourth-year electives provide the opportunity for students to pursue areas of special interest and, at the same time, they serve as a means of encouraging students to continue their education throughout their professional careers.

The individualized curriculum developed by the student and faculty advisor must be approved by the associate dean for academic affairs. The student will pursue the approved curriculum through completion of the D.D.S. program. Additional requirements include participation in mock board examinations and one month of remote-site training by fourth-year students. Furthermore, students must satisfactorily complete all courses for which they have registered.

Promotion

At the end of each grading period (i.e., each academic semester or session) all students will have their individual progress reviewed by the academic standards committee convened for their class. The progress of each student in the curriculum is governed by a set of minimum acceptable performance standards upon which the academic standards committee bases its decisions.

The standards consist of three categories: scholastic performance; clinic utilization; and professional development. Scholastic performance requires that each student must earn a specified grade-point average to be promoted to the succeeding year. Clinic utilization requires that each student must utilize a specified percentage of available clinic time to demonstrate steady progress toward attainment of clinical competency. Professional development is an important component of the study of dentistry. The criteria for determining this development are based on the student's personal behavior and patient management.

These performance standards are explained in detail in the document entitled *WVU School of Dentistry Academic and Professional Standards*. All first-year students are presented this document prior to entering school and are required to acknowledge by their signature that they have read and accepted the conditions set by the material contained therein. At the completion of each academic term, following the Committee on Academic Standards meetings, the status of each student is reported to the dean and Faculty Council. The committee may recommend that a student be promoted unconditionally, be

promoted on probation, be allowed to make up deficiencies, be given the opportunity to repeat the year, or be suspended or dismissed from further studies in the School of Dentistry. Final disposition in each case is the prerogative of the Committee on Academic Standards and the dean.

SCHOOL OF DENTISTRY COURSE SCHEDULE

First Year

Didactic Courses	Hours	Sem.1	Sem.2	S
300 Anesthesiology	1			x
303 Oral Diagnostic Techniques	2			x
304 Operative Dentistry	4		x	
305 General Biochemistry	4		x	
324 Gross Anatomy	7		x	
309 Microanatomy and Organology	5	x		
310 Dental Anatomy and Occlusion	6	x	x	
311 Periodontics	2			x
312 Dental Materials	3	x		
313 Removable Prosthodontics	3	x		
314 Fixed Prosthodontics	1			x
315 Periodontics	2	x	x	
316 Removable Prosthodontics	1			x
317 Removable Prosthodontics	1		x	
318 Oral Histology and Embryology	2	x		
319 Pediatric Dentistry	1		x	
320 Community Dentistry	1	x		
322 Operative Dentistry	2			x
345 Principles of Orthodontics	1	x		

Second Year Didactic Courses

302 Microbiology	5	x		
321 Endodontics	2		x	
323 Clinic Orientation	0	x		
325 Practice Management	1		x	
327 Oral Radiology	1	x		
328 General Pathology	5		x	
329 Operative Dentistry	2	x		
331 Dental Anatomy and Occlusion	2			x
332 Periodontics	1		x	
333 Physical Diagnosis	1		x	
334 Removable Prosthodontics	3	x	x	
335 Pediatric Dentistry	2	x	x	
336 Fixed Prosthodontics	6	x	x	
337 Oral Diagnosis	1		x	
338 Oral Pathology	3		x	x
339 Oral Surgery	1		X	
340 Periodontics	1	x		
341 Removable Prosthodontics	2			x
342 Periodontics	1	x		
343 Fundamentals of Physiology	5	x		
344 Diagnosis and Treatment Planning	1		x	
346 Orthodontic Technics	2			x
348 Operative Dentistry	1			x
349 Hospital Dentistry	1			x

Second Year Clinical Courses

375 Dental Practice Management	1-3		x	x
376 Removable Prosthodontics	1-6		x	x

377	Periodontics	1-5		x	x
380	Endodontics	1-5		x	x
383	Operative Dentistry	1-8		x	x
384	Oral Surgery	1-3		x	x
386	Pediatric Dentistry	1-5		x	x
387	Clinical Oral Diagnosis	1-3		x	x
389	Fixed Prosthodontics	1-6		x	x
396	Clinical Oral Radiology	1-3		x	x
Third Year Didactic Courses					
330	Community Dentistry	1		x	
347	Management of Medical/Dental Emergencies	1		x	
350	Removable Prosthodontics	1	x		
351	Dental Anatomy & Occlusion	1		x	
352	Community Dentistry	2	x	x	
353	Oral Pathology	2	x		
354	Introduction to Dental Implants	1		x	
355	Clinic-Pathologic Correlation Conference	1		x	
357	Fixed Prosthodontics	2	x	x	
359	Oral Surgery	2	x	x	
360	Pharmacology	4	x		
361	Pediatric Dentistry	1	x		
363	Periodontics	2	x	x	
365	Orthodontics	1		x	
366	Pediatric Dentistry	1		x	
369	Practice Management	1		x	
371	Practice Management	2	x		
374	Principles of Medicine	2	x		
Third Year Clinical Courses					
375	Practice Management	1-3	x	x	x
376	Removable Prosthodontics	1-6	x	x	x
377	Periodontics	1-5	x	x	x
380	Endodontics	1-4	x	x	x
383	Operative Dentistry	1-8	x	x	x
384	Oral Surgery	1-3	x	x	x
385	Orthodontics	1-3	x	x	x
386	Pediatric Dentistry	1-5		x	x
387	Clinical Oral Diagnosis	1-3	x	x	x
388	Pediatric Dentistry	1		x	x
389	Fixed Prosthodontics	1-6	x	x	x
396	Clinical Oral Radiology	1-3	x	x	x
Fourth Year Didactic Courses					
356	Removable Prosthodontics	1	x		
358	Operative Dentistry	2		x	
362	Endodontics	1	x		
364	Pain and Anxiety Control	1	x		
370	Community Dentistry	1		x	
378	Practice Management-Law	1	x		
379	Practice Management-Ethics	1		x	
Fourth Year Clinical Courses					
375	Practice Management	1-3	x	x	x
376	Removable Prosthodontics	1-6	x	x	x
377	Periodontics	1-5	x	x	x
380	Endodontics	1-4	x	x	x
383	Operative Dentistry	1-8	x	x	x
384	Oral Surgery	1-3	x	x	x
385	Orthodontics	1-3	x	x	x

386 Pediatric Dentistry	1-5	x	x	x
387 Clinical Oral Diagnosis	1-3	x	x	x
388 Pediatric Dentistry	1	x	x	x
389 Fixed Prosthodontics	1-6	x	x	x
394 Community Dentistry	1	x	x	x
396 Clinical Oral Radiology	1-3	x	x	x
391 Special Topics	1-15	x	x	x

The relationship of the number of elective and/or required hours during the fourth year may vary, depending upon each student's progress.

Dental Hygiene

Barbara Komives, Director

Degree: Bachelor of Science in Dental Hygiene

Dental hygiene, a division of the School of Dentistry, offers a four-year curriculum leading to a B.S. in dental hygiene. The program is, in part, based in the liberal arts, but it is also a thoroughly professional education. The format of the curriculum is not conventional, in that it includes courses from many academic disciplines. The program prepares students through classroom and practical experiences.

Program Goals

- Preparation of individuals to perform to the level of competency specified by the faculty, the state boards of dental examiners, and employers (those oral health services legally approved for a dental hygienist in any state, district, or territory of the United States). Presently these services include: observation, recording, prevention, treatment, education, and communication.

- Preparation of individuals capable of performing the clinical skills delegated to any allied dental personnel (excluding the dental laboratory technician).

- Preparation of dental hygienists to teach clinical skills and didactic information in allied dental education programs.

- Preparation of individuals capable of performing coordinative and administrative functions in public health, hospitals, and community related areas in urban and rural settings.

- Preparation of dental hygienists who have a keen sense of social awareness and personal and professional ethics.

- Preparation of dental hygienists to continue their professional development beyond graduation through continuing education, advanced studies, self study, independent thought, and graduate endeavors.

- Preparation of dental hygienists who have the capability to understand and adapt to new developments and changes in science, technology, and practice of comprehensive health care.

- Provision of an educational foundation for advanced studies.

- Provision of the degree completion option to allow students holding an associates degree/certificate in dental hygiene to obtain a Bachelor of Science in Dental Hygiene.

Admission

To get application and reference forms, please write to the Division of Dental Hygiene, P.O. Box 9425, West Virginia University, Morgantown, WV

26506-9425, or to the Office of Admissions, Health Sciences Center, P.O. Box 9815, West Virginia University, Morgantown, WV 26506-9815. As soon as possible in the year preceding the year you want to enter the program, you should apply and complete the aptitude tests. Forms for the following year are available in September.

If you have no previous study in higher education, you will apply for admission as a freshman at WVU. You must have a diploma from an accredited high school or preparatory school, and we expect you to have these courses listed on your high school transcript:

English—4 units	Algebra—2 units	Plane geometry—1 unit
Biology—1 unit	Chemistry—1 unit	

We pay particular attention to scholastic achievement in science courses. We also expect applicants to rank in the upper one half of their graduating class. Physical strength with the ability to sit and stand as required, fine precision bilateral manipulative hand/motor skills, adequate visual acuity, eye/hand/foot coordination and emotional stability are essential characteristics for individuals who wish to enter and continue in the dental hygiene program. They must meet other medical qualifications as required. Reasonable accommodation will be considered for students with special needs.

We require that you take the American College Testing Program examination or the Scholastic Aptitude Test. We ask for personal references, to be submitted on our reference form. All three references must be sent by the writer of the reference directly to the Division of Dental Hygiene. The Dental Hygiene Admissions Committee reviews all applications and may require you to come to the campus for a personal interview. If the committee requests an interview, you will receive a letter stating the date, time, and place of the interview. Competition for admission to our program is intense, and we give preference to residents of West Virginia.

Degree Completion Program

If you are a registered dental hygienist, we can admit you directly to the Division of Dental Hygiene as a full-time or as a part-time student. To be eligible for the degree completion program, you must have a certificate or associate degree from an accredited dental hygiene program. You can transfer lower division credits (see "Dental Hygiene Suggested Curriculum"). Your acceptance and placement in the program depends upon your academic record and upon the number of spaces available.

When you apply, we ask you to include complete records of previous study. In addition to an official transcript mailed to us by the registrar of your previous school, we ask you to include catalog descriptions of the courses taken. If you are currently enrolled in a certificate or associate degree program, we ask that you include your program of study. You are responsible for the submission of complete records.

You can enter the degree completion program twice a year. Applications can be obtained after September 1 of the year preceding application to the program.

Requirements

- To summarize the admission process for the degree completion program:
- Complete the accredited certificate/associate degree program in which

you are currently enrolled or offer proof of a previously completed program.

- Present at least a 2.5 grade-point average for all college work attempted. If your grade-point average is below our minimum, you can petition the Dental Hygiene Admissions Committee for special consideration.

- Successfully complete the Dental Hygiene National Board Examination and submit your score.

- Submit two letters of reference, one from the director of your previous program and one from a clinical instructor. If you have professional experience, substitute a letter from your employer for either of the above.

The Admissions Committee may ask you to come for a personal interview before they make a final decision on your application.

Promotion

At the end of every semester, the Dental Hygiene Committee on Academic Standards reviews the status of every student in the program. The committee recommends promotion or retention to the Dean of the School of Dentistry.

If you fulfill all course requirements and have the necessary grade-point averages, your promotion is unconditional. The necessary grade-point averages for each year are as follows:

Cumulative grade-point average: after first year 1.75 for promotion to second year; 2.0 for promotion to third year; 2.0 for promotion to fourth year and 2.0 for graduation.

Science/Dental Hygiene grade-point averages are the same for yearly promotion.

The Science/Dental Hygiene average is based on grades earned in these courses or their equivalents: Anatomy 101; Biology 2; Chemistry 11, 12; Dentistry 300; Microbiology 26; Pathology 128, 129; Pharmacology and Toxicology 160; Physiology 141; Dental Hygiene 1-220.

If you do not qualify for unconditional promotion, you may be placed on probation. Probationary status means that you are allowed to make up your deficiencies or repeat the year. If, after repeating the year, you do not reach the minimum grade-point standard, the committee will reevaluate your status and potential.

The Division of Dental Hygiene reserves the right to suspend or require remedial work of any student who does not perform at a level satisfactory for patient care.

Dental Hygiene Suggested Curriculum

First Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
ORIN 2	1	BIOL 2	3
ENGL 1	3	BIOL 4	1
Cluster A	3	CHEM 12	4
DTHY 66 <i>Tech Literature</i>	1	DTHY 85 <i>Oral Anatomy</i>	3
MATH 3	3	HN&F 71 <i>Intro. Nutrition</i>	3
CHEM 11	4	Cluster B (SOCA 1)	<u>3</u>
DTHY 1	<u>2</u>		17
	17		

Second Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
ANAT 101	4	PSIO 141	4
Cluster B (Psych. 1)	3	DTHY 90 <i>Oral Histology</i>	3
DTHY 105		PCOL 160	3
<i>Theory & Pract. of Prevent.</i>	2	DTHY 125 <i>Dent.Hy. Technics</i>	4
MBIM 26	4	ENGL 2	3
Cluster A	3	DTHY 120 <i>Dent. Nrsg. Technics</i>	1
SPA 80	3		18
	19		

Third Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
DTHY 168 <i>Periodont. 1</i>	1	DTHY 169 <i>Periodont. 2</i>	2
Cluster B (PSYC 141)	3	DTHY 174 <i>Teaching Methods</i>	2
PATH 128	2	PATH 129	3
DTHY 152 <i>Dent. Radiol.</i>	2	DTHY 161 <i>Expanded Functions</i>	2
ANES 300	1	Cluster A	3
DTHY 172 <i>Public Health</i>	2	DTHY 150 <i>Dent. Health Ed.</i>	3
DTHY 160 <i>Dent. Materials</i>	3	DTHY 164 <i>Clin. Dent. Hy.</i>	2
DTHY 162 <i>Clin. Methods</i>	2		17
DTHY 163 <i>Clin. Dent. Hy.</i>	2		
	18		

Fourth Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
DTHY 204 <i>Adv. Clin. Meth.</i>	1	DTHY 206 <i>Adv. Clin. DH</i>	3-4
DTHY 205 <i>Adv. Clin. DH</i>	5	DTHY 207 <i>Adv. Clin Meth</i>	1
DTHY 202 <i>Dent. Hy. Pract.</i>	2	DTHY 220 <i>Dent. Health Ed. III</i>	2
Cluster B	3	DTHY 220 <i>Spec. Topics/DH</i>	3
Cluster A	3		
DTHY 220 <i>DH Ed. II</i>	2		

DH Elect. 3-4 hours elective credits in Dental Hygiene during the fourth year.

Advanced Education Programs

The Divisions of Dental Hygiene and Endodontics and the Department of Orthodontics offer programs of advanced study leading to the degree of master of science (M.S.). The Department of Oral and Maxillofacial Surgery offers one four-year residency. Seven general practice and two advanced education in general dentistry residencies are also offered. Continuing education courses are offered throughout the year. Detailed information concerning admission requirements, courses of study, etc., in these programs may be obtained from the Office of the Associate Dean for Academic and Postdoctoral Affairs, WVU School of Dentistry, Morgantown, WV 26506.

Master of Science Major in Dental Hygiene

Areas of Emphasis

Office Management	Special Patients
Educational Administration	Basic Sciences

The School of Dentistry and its Division of Dental Hygiene offer a program of advanced study and specialized training leading to the degree of master of science. This program requires a minimum of 36 semester hours through full-time or part-time enrollment in the School of Dentistry. It is designed to qualify dental hygienists for careers in teaching, administration, research and management.

Options for concurrent masters degrees in the areas of community health or public administration are also available.

Inquiries concerning this program should be directed to the Office of the Associate Dean for Academic and Postdoctoral Affairs, School of Dentistry. Applications should be filed by July 1 for fall admission and by November 1 for spring enrollment.

Admission Requirements

- Graduation with a baccalaureate degree in dental hygiene from an accredited dental hygiene program or graduation with a baccalaureate degree in another field of study from an approved institution of higher education while holding a certificate or associate degree in dental hygiene from a program fully accredited by the American Dental Association Commission on Dental Accreditation

- Evidence of scholastic and clinical achievement to indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade-point average of 2.5 is required

- Completion of one of these standardized tests: the Graduate Record Examination (GRE) general aptitude test with a score of 1,000 or above, or the Miller's Analogy Test with a score of 50 or above

- Submission of all information requested in the graduate application to the office of the associate dean for academic and postdoctoral affairs.

Degree Requirements

- Completion of a minimum of 36 semester credit hours: 23 required credit hours and 13 credit hours in an elective area(s) of dental hygiene specialization. Four elective areas of specialization are offered. The student may choose one or two of these areas of study. Courses within these specializations are taught by a number of schools within the University. An individualized program will be devised for each student with a maximum of six hours in research leading to an acceptable thesis. Oral defense of the thesis is required.

- Achievement of a 3.0 GPA or an overall academic average of at least B in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

- Removal of all conditions, deficiencies and incomplete grades. Credit hours for courses with a grade lower than C do not count toward degree requirements.

M.S. Curriculum

	Credit Hours
ED P 311 <i>Statistical Methods</i>	3
ED P 330 <i>Foundations of Educational Measurement</i>	3
DTHY 380 <i>Seminar Critical Issues in Health Care</i>	3
DTHY 381 <i>Seminar Expanded Functions</i>	3
DENT 391 <i>Advanced Topics</i>	2
DTHY 385 <i>Research Methods for the D.H.</i>	3
DTHY 397 <i>Research (Thesis)</i>	6
Total	23
Elective Area(s) of Dental Hygiene Specialization	13
Dental Hygiene 391 and Dentistry 391 courses	
Courses offered by the Colleges of Business and Economics and Human Resources and Education, the School of Medicine's Department of Community Health, and the multidisciplinary studies program.	
Total	36

Master of Science Specialization in Endodontics

The School of Dentistry and its Division of Endodontics offer a program of advanced study and clinical training leading to the degree of master of science (M.S.). The program requires a minimum of 24 months (two academic years and two summer sessions) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in endodontic clinical practice, teaching, and research.

Inquiries concerning this program should be directed to the office of the associate dean for academic and postdoctoral affairs. Applicants will be processed in the School of Dentistry. Applicants approved for admission to the program will be notified soon after December 1.

Admission to the Endodontic Program

- Graduation from an accredited school of dentistry.
- Evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature.

Each applicant must file with the Division of Endodontics all information requested in the departmental application form.

Requirements for Degree

- Fulfillment of general WVU graduate study requirements.
- Twenty-four months (two academic years and two summer sessions) of consecutive residency at the WVU School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to endodontics. A certificate will be awarded only upon satisfactory completion of the research and thesis.
- Satisfactory completion of a final oral examination.
- Completion of a minimum of 63 credit hours. These include 32 hours of endodontic courses, a minimum of 22 hours of selected basic sciences subjects, two hours of teaching practicum, and a thesis.
- Demonstration of satisfactory clinical competency in the student's field.

- Achievement of a 3.0 GPA or an overall academic average of at least a B in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

Master of Science Specialization in Orthodontics

The School of Dentistry and its Department of Orthodontics offer a program of advanced study and clinical training leading to the degree of Master of Science (M.S.). The program generally requires 36 months (three academic years and two summers) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in orthodontic clinical practice, teaching, and research. Inquiries concerning this program should be directed to the office of the associate dean for academic and postdoctoral affairs. Those applicants approved for admission to the program will be notified December 1.

Requirements for Admission to the Orthodontic Program

- Graduation from an accredited dental school.
- Evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade-point average of 3.00 is required for admission.
- Each applicant must file with the department all information requested in the department application form.

Requirements for Degree of Master of Science

- Fulfillment of general WVU graduate study requirements.
- Thirty-six months (three academic years and two summers) of residency at the School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to orthodontics.
- Satisfactory passage of a final oral examination.
- Completion of a minimum of 74 credit hours. These include 46 hours of orthodontic courses, a minimum of 13 hours of selected basic sciences subjects, two hours of teaching practicum, and a thesis (13 hours).
- Demonstration of satisfactory clinical competence in the student's field.
- Achievement of a 3.0 GPA or an overall academic average of at least a B in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

School of Medicine

Robert M. D'Alessandri, M.D., Dean

John F. Brick, M.D., Associate Dean, Hospital Affairs

Shawn A. Chillag, M.D., Assistant Dean, Student Affairs and Curriculum,
Charleston Division

Anthony DiBartolomeo, M.D., Associate Dean, Clinical Affairs

Norman D. Ferrari, M.D., Associate Dean, Ambulatory Services

James K. Hackett, M.B.A., Associate Dean, Finance and Administration

George A. Hedge, Ph.D., Associate Dean, Research and Graduate Studies

Michael J. Lewis, M.D., Ph.D., Associate Dean, Charleston Division

Mary Beth Mandich, Ph.D., Associate Dean for Allied Health

James M. Shumway, Jr., M.D., Ph.D., Associate Dean, Educational Programs

James Stevenson, M.D., Associate Dean, Development and Continuing
Medical Education

John W. Traubert, M.D., Associate Dean, Student and Curricular Affairs

Degrees Offered:

M.D. in Medicine

M.S., Ph.D. in Anatomy

M.S., Ph.D. in Biochemistry (Medical)

M.S., Ph.D. in Microbiology and Immunology

M.S., Ph.D. in Pharmacology and Toxicology

M.S., Ph.D. in Physiology (Medical)

M.S. in Community Health Promotion

M.S. in Public Health

B.S., M.S. in Exercise Physiology

B.S., M.S. in Medical Technology

B.S.P.T. in Physical Therapy

Historical Background

The West Virginia University School of Medicine started in 1902 as an affiliate with the College of Physicians and Surgeons of Baltimore. In 1912, the School of Medicine had its formal beginnings as an independent school offering the first two years of basic sciences medical curriculum. The clinical years were completed at another institution. The School of Medicine moved to the current Robert C. Byrd Health Sciences Center in 1957 and inaugurated the four year curriculum in 1960, which coincided with the opening of the 550 bed University Hospital. The first M.D. degrees were awarded to 15 students in 1962.

In 1945, the School of Medicine began a course of study leading to a bachelor of science in medical technology. The first graduates were awarded a combined degree by the School of Medicine and the College of Arts and Sciences. The program of medical technology in the School of Medicine was established in 1961.

The Division of Physical Therapy accepted its first class of 16 students in 1970. It offers the final two years of a baccalaureate program leading to the degree of bachelor of science in physical therapy.

In 1972, the Charleston Area Medical Center became affiliated with West Virginia University. The Robert C. Byrd Health Sciences Center of West

Virginia University—Charleston Division offers a variety of third and fourth year clerkships for medical students. Approximately one third of each class goes to Charleston for the third and fourth years of medical education.

The Wheeling Division of the Robert C. Byrd Health Sciences Center of West Virginia University was established in 1974 and offers a variety of elective opportunities for students in the fourth year. In 1994, exercise physiology, community health promotion, and public health were added to the list of programs in the School of Medicine.

Facilities

The Robert C. Byrd Health Sciences Center of West Virginia University has excellent clinical facilities. The Ruby Memorial Hospital offers the most sophisticated medical technology available, including magnetic resonance imagery, lithotripsy, laser surgery, and the necessary support technology. The Chestnut Ridge Psychiatric Hospital allows the entire spectrum of psychiatric and behavioral problems to be managed. The Ruby Memorial Hospital also houses the Jon Michael Moore Trauma Center and the WVU Children's Hospital. The Mary Babb Randolph Regional Cancer Center, completed in 1990, provides a facility totally dedicated to the diagnosis and treatment of cancer. Dedicated research and teaching space will allow outstanding cancer scientists to work toward the goals of prevention and cure. Areas of cellular biology, immunology, monoclonal antibody, gene tracking, and recombination research are ongoing at the Cancer Center. In 1995, the Positron Emission Tomography (PET) Center and cyclotron will be operational for specialized diagnostic procedures and research.

Mountainview Regional Rehabilitation Hospital, a sixty bed inpatient center, offers students the opportunity to investigate rehabilitative and physical medicine as a career. The Department of Occupational Medicine has recently evolved, which complements all of the other existing programs.

School of Medicine Departments

Department	Chairperson
Anatomy	Richard C. Wiggins, Ph.D.
Anesthesiology	Edward H. Stullken, M.D.
Behavioral Medicine and Psychiatry	James M. Stevenson, M.D.
Biochemistry	Diana S. Beattie, Ph.D.
Community Medicine	R. John C. Pearson, M.D.
Emergency Medicine	John Prescott, M.D.
Family Medicine	Glen Aukerman, M.D.
Medicine	Edward J. Weinman, M.D.
Microbiology and Immunology	John B. Barnett, Ph.D.
Neurology	Ludwig Gutmann, M.D.
Neurosurgery	Howard H. Kaufman, M.D.
Obstetrics and Gynecology	Mark Gibson, M.D.
Ophthalmology	George Weinstein, M.D.
Orthopedic Surgery	J. David Blaha, M.D.
Otolaryngology	Stephen J. Wetmore, M.D.
Pathology	Mary Ann Sens, M.D., Ph.D.
Pediatrics	William A. Neal, M.D.
Pharmacology and Toxicology	William W. Fleming, Ph.D.

Physiology
Radiology
Surgery
Urology

David L. Kreulen, Ph.D.
Mathias P. Frick, M.D.
Gordon F. Murray, M.D.
Donald L. Lamm, M.D.

Committees (Chairpersons)

Academic Standards:	Gunter N. Franz.
Biomedical Research Support:	George Spiru.
Curriculum Committee:	Anne C. Cutlip.
Executive Faculty:	Robert M. D'Alessandri.
Faculty Promotion and Tenure:	C. Robert Craig.
SoM Hospital Liaison to Student Body:	Robert M. D'Alessandri.
Admissions Committee, M.D. Degree:	David S. Hall.
E. J. Van Liere Student Research Convocation:	Wilbert E. Gladfelter.
Continuing Medical Education:	James M. Stevenson.
Admissions Committee/Medical Technology:	Jean Holter.
Admissions Committee/Physical Therapy:	Marybeth Mandich and John Petronis.
Committee on Women's Issues:	Terry Schwartz.
Distinguished Teacher Committee:	Mary Ann Antonelli.
Coordinating Counsel on Graduate Medical Education:	Anthony G. DiBartolomeo.

Graduate Programs in Basic Sciences

George A. Hedge, Ph.D., Chairperson, Health Sciences Graduate Council

Nature of Program

Graduate degrees are offered by the School of Medicine in the Departments of Anatomy, Biochemistry, Pathology (Medical Technology), Microbiology and Immunology, Pharmacology and Toxicology, and Physiology. Brief guidelines and descriptions of these programs begin below. For more detailed presentation of graduate programs, as well as the policies and rules governing graduate education, the *West Virginia University Graduate Catalog* should be consulted.

Anatomy

Richard C. Wiggins, Chairperson
William Beresford, Graduate Coordinator

Degrees Offered:

Master of Science, Doctor of Philosophy

The Department of Anatomy in the School of Medicine offers graduate programs that are committed to training strong, independent researchers and capable teachers. This goal is accomplished through the completion of a carefully designed plan of study tailored to the individual student's interests. The program includes instruction in basic morphological, developmental, and functional aspects of human anatomy. Selected courses strengthen the area

of interest of the student. The student conducts an original research project culminating in a dissertation (Ph.D.) or a thesis (M.S.).

Admission Requirements

In addition to the admission procedure of the University, the Department of Anatomy requires that each applicant complete a departmental application form obtained from the department. Application forms and departmental information may be obtained by contacting the graduate coordinator, Department of Anatomy, School of Medicine, P.O. Box 9128, West Virginia University, Morgantown, WV 26506-9128.

After an application is favorably reviewed, applicants are invited for a personal interview whenever practical. The applicant is admitted by the decision of the chairperson, the director, and admissions officer of the graduate program, in consultation with the departmental graduate faculty.

It is recommended that the following courses be completed before entering the graduate program: algebra, general physics, inorganic and organic chemistry, general biology or zoology, comparative anatomy, embryology, genetics, and cell biology or general physiology. A grade-point average above 3.0 is desirable. The aptitude portion and an advanced section of the Graduate Record Examination are generally required. Also, three letters of recommendation from persons who can best evaluate the applicant's potential for graduate study should either accompany the application or be mailed to the Department of Anatomy separately. Applicants desiring consideration for financial aid should complete the application process as early as possible.

Doctor of Philosophy

The first year of study consists of course work and starting research in one or more laboratories. These courses include gross anatomy, microanatomy, neurobiology, and seminar in anatomy. A combination of courses in other basic medical sciences, such as biochemistry, physiology, pathology, statistics, and advanced anatomy courses is chosen to meet the individual student's needs. Students are in good standing while a minimum 3.0 overall grade-point average is maintained.

To be admitted to candidacy for the Ph.D. degree, the student must pass the preliminary examination and prepare a plan for a research project to be undertaken for the dissertation. To be recommended for the Ph.D. degree, each student must complete a dissertation based on original research and defend the dissertation at an oral examination. The student is also expected to present the experimental work at national meetings of scientific societies.

This program allows flexibility for each student. The precise plan of study is designed by the student and an advisory committee that is composed of faculty members selected by the student by the start of the second year.

Master of Science

The master's program in anatomy is offered as a terminal degree primarily for students in certain specialized fields, such as physical therapy or in a conjoint program in dentistry or medicine. It is not necessary for the student to complete the M.S. degree in order to qualify for admission into the Ph.D. program, although the student may elect to complete the requirements for this degree in progress toward the Ph.D. An applicant who shows a special need for the M.S. degree must generally be as well qualified as applicants for the

doctoral program. The M.S. student must complete courses in gross anatomy and microanatomy and six to nine hours of required and elective courses. A 2.75 grade-point average must be maintained. In addition to course work, the student must complete a thesis based on original research and defend the thesis at an oral comprehensive examination.

Research Fields

Cell biology of brain glial cells; molecular biology of brain disorders; childhood malnutrition and the brain; innervation and function of the airway; cell biology of occupational diseases of the lung; microcirculation and its role in liver function and wound healing; X-ray microanalysis of drug metabolism of cells; sensory pathways from the hand; orthopedic research.

BIOCHEMISTRY

Diana S. Beattie, Ph.D., Chairperson

Brad Hillgartner, Ph.D., Graduate Coordinator

Degrees Offered:

Master of Science, Doctor of Philosophy

Graduate programs in the Department of Biochemistry are designed to assist students in the development of their own capabilities for independent thought and research. All students are provided with a strong biochemistry background; however, the program has sufficient flexibility to allow individual students to select advanced specialty courses in biochemistry which are of particular importance to their career goals. Faculty research problems are of current interest and are diverse, reflecting the broad spectrum of areas encompassing biochemistry.

Admission Requirements

A prospective graduate student should hold a bachelor's degree with a science major and should have successfully completed courses in qualitative-quantitative chemical analysis, organic chemistry, calculus, physics, and physical chemistry. In some cases, a deficiency in the above may be made up after admission into the program.

Application is made by submission of the following items to the Department of Biochemistry:

- The completed departmental application form (sent on request);
- Three letters of recommendation from professors who can evaluate the student's present abilities and potential;
- Official transcript of the applicant's college grades; and
- Official copy of Graduate Record Examination scores.

Owing to the sequence of courses, entrance in the fall is preferred, but exceptions may be made as necessary. Application materials and program details may be obtained by writing the graduate coordinator, Department of Biochemistry, School of Medicine, P.O. Box 9142, West Virginia University, Morgantown, WV 26506-9142. The deadline for receipt of applications and supporting documents by the department is April 1; to be considered for financial support, applications should be submitted by February 1.

Doctor of Philosophy

To assure that all students become familiar with the basic principles of biochemistry, the first year of the doctor of philosophy (Ph.D.) program is devoted primarily to course work. In addition to formal courses during the first semester, students participate in a laboratory program that involves all faculty members. This laboratory experience is designed to illustrate the basic research skills involved in biochemistry. During the second semester, students will undertake research in at least two laboratories of their choice.

Upon successful completion of the first year, students will choose a dissertation research adviser, at which time emphasis will be placed on research. During the second year, specialized courses in biochemistry will be offered as the students continue their research programs. During subsequent years, the students emphasize independent thesis research, and a few formal courses are taken.

An essential component of the Ph.D. program is participation in departmental journal clubs and seminars. Both students and faculty participate; thus, students learn to organize effectively and present research material to a large group of people.

Completion of the Ph.D. program is realized when the student successfully presents the research results to both the Department of Biochemistry and a graduate advisory committee. Typically, four years are required to realize this goal.

Master of Science

The Department of Biochemistry offers the thesis master's degree. This program involves completion of a master's research project in addition to formal course work. Two to three years are generally required to complete the M.S. program.

Research

Hormonal regulation of metabolism. Regulation of gene expression. Structure and function of nucleic acids. Chemistry of enzymes and serum proteins. Structure of connective tissue. Nutritional oncology. Secretory mechanisms. Biogenesis of membranes, enzymology of replicative proteins, membrane molecular biophysics

MICROBIOLOGY AND IMMUNOLOGY

John B. Barnett, Ph.D., Chairperson

Robert Burrell, Ph.D., Graduate Coordinator

Degrees Offered:

Master of Science, Doctor of Philosophy

The Department of Microbiology and Immunology offers programs of study leading to the degrees of master of science (M.S.) and doctor of philosophy (Ph.D.) in microbiology and immunology. Students with an undergraduate degree can apply to either the M.S. or Ph.D. program. The major purpose of graduate education in the department is research training. The basic philosophy of the department is that the students have a strong

foundation in basic concepts of microbiology and immunology and flexibility in choosing advanced course work in their specific areas of interest. A major emphasis of the graduate program is extensive laboratory research in microbiology and immunology. Each student will complete an original, in-depth research investigation. The overall aim of the program is to produce students capable of designing and doing independent research and teaching.

Admission Requirements

Applicants to either the Ph.D. or M.S. graduate programs in microbiology and immunology ought to have had at least four upper-level courses in the biological sciences, two semesters of organic chemistry, two semesters of physics, and a strong background in mathematics (including calculus) in order to be considered for admission. Applicants must submit a departmental application form, three letters of recommendation, and general Graduate Record Examination (GRE) scores to the graduate coordinator, Department of Microbiology and Immunology, P.O. Box 9177, School of Medicine, West Virginia University, Morgantown, WV 26506-9177. In addition, transcripts and an official application for admission must be sent directly to the WVU Office of Admissions and Records, P.O. Box 6009, Morgantown, WV 26506-6009. Applicants for admission to a degree program should have a grade-point average of 3.0 or better and must take the general GRE. GRE scores are also used as one of several selection criteria for admission to the department's graduate program. Although no minimum score is required for selection, successful applicants usually have a combined score of 1500 or greater on the general GRE. International students must have a TOEFL score of at least 550. Early application is encouraged. Applicants desiring financial aid should complete their application before March 1. All applications must be completed by June 1 for fall admission. No mid-year admissions are made.

Program Requirements

Master of Science

Every student must take the following courses or demonstrate proficiency by examination in each of the following areas: Microbiology (MBIM) 317 *Special Problems in Microbiology* and MBIM 391 *Advanced Topics* (laboratory rotation). Every student must take the following courses or demonstrate proficiency by examination in each of the following areas: Microbiology (MBIM 317A and 317B) Graduate Immunology, Virology, and Microbiology, Biochemistry (BIOC 399D), Cellular and Molecular Biochemistry I and II, and MBIM 391 *Advanced Topics* (laboratory rotations). The remainder of the course work is selected by the student and the advisory committee from the following courses: MBIM 327, 399 or any of the microbiology and immunology advanced study courses (MBIM 491). Enrollment in MBIM 496 *Seminar* is required each semester that the student is in residence. All full-time students in the Department of Microbiology and Immunology are required to participate in teaching at least one semester a year.

The master of science program requires 30 hours of course work, of which at least 20 hours must be in microbiology and immunology. Six hours must be in research (MBIM 397). A grade-point average of at least 3.0 must be maintained. A thesis representing original research and a final oral examination are required. In general, two years are needed to complete the M.S. program.

Doctor of Philosophy

Students with either a bachelor's or master's degree can apply to the Ph.D. program. Those with a bachelor's degree must complete the basic course requirements expected of an M.S. candidate. The doctoral candidate with an M.S. degree from another department must have had course work or demonstrate knowledge in microbiology and immunology and biochemistry equivalent to that of a master's student in the department. In addition, the doctoral student will take additional course work as determined by the student's graduate research advisory committee. A minimum of nine hours in MBIM 491 courses or selected advanced courses from other departments is required. Where appropriate, course work in related subjects such as computer science, cell biology, biochemistry, physical chemistry, and statistics will be required. MBIM 496 *Seminar* is a required course each semester that the student is in residence. The student will maintain a grade point average of 3.0. The doctor of philosophy program requires a dissertation representing the results of an original research investigation and the passing of a written qualifying and a final oral examination. The qualifying examination is given at the end of the first year of study. The final oral examination is given after completion of research and an acceptable dissertation. All full-time students are required to participate in teaching at least one semester a year. Three years are usually needed to complete the Ph.D. program.

The Department of Microbiology and Immunology has informal journal clubs in immunology and in microbiology. These are designed to help the students develop skills in reading, interpreting and discussing current research articles. All students are expected to participate in one or more.

For application materials, a description of faculty research interests, guidelines for graduate study in the Department of Microbiology and Immunology, or additional information, write to the chairperson, Admissions and Scholarship Committee, Department of Microbiology and Immunology, P.O. Box 9177, West Virginia University, Morgantown, WV 26506-9177.

Research

Cell Biology: oncogenes and cell signalling.

Genetics: basic studies in the mechanisms of genetics including transfer of genetic information; recombinant DNA studies.

Immunology: immunopathology of pulmonary disease and microbial inhalants; developmental immunology; mechanisms of T cell function; immunogenetics; immunotoxicology; mucosal immunology; immunology of infectious microbes.

Mycology: pathobiology of medical mycoses; antibiotic susceptibility testing; environmental health implications of fungal and algal toxicoses.

Parasitology: host parasite relationships between helminths and insects with vertebrate hosts; protozoan endosymbionts.

Pathogenic Bacteriology: mode of action of microbial products in pathogenicity; ecology of clinical microbiology; antibiotic mode of action; immunomodulation of cystic fibrosis.

Physiology: nutrition and metabolism of a variety of pathogenic microorganisms; growth and protein synthesis of intracellular bacteria.

Virology: retroviral recombination, oncogene transduction, and human gene therapy.

PHARMACOLOGY AND TOXICOLOGY

William W. Fleming, Ph.D., Chairperson

Charles R. Craig, Ph.D., Graduate Coordinator

Degrees Offered: Master of Science, Doctor of Philosophy

Pharmacology and toxicology involve all aspects of the action of drugs on living systems and their constituent parts. These range from the chemical reactions taking place within cells to the evaluation of a drug in the treatment of human disease. The Department of Pharmacology and Toxicology offers graduate studies leading to the degrees of master of science and doctor of philosophy, with research concentrations in such areas as autonomic pharmacology, biochemical pharmacology, neuropharmacology, molecular pharmacology, cardiovascular pharmacology, endocrine pharmacology, ion-channel pharmacology, malarial chemotherapy, signal transduction, and renal, hepatic, and pulmonary toxicology.

Admissions Requirements

Regular applicants for the graduate program in pharmacology and toxicology should present, as a minimum, the following undergraduate courses: one semester of biology; two semesters of physics; one semester of calculus; four semesters of chemistry including two semesters of organic chemistry. Three letters of recommendation from science professors, an official transcript, and the results of the Graduate Record Examination are also required. The prospective student should have a minimum 3.0 overall grade-point average at the undergraduate level.

In general, students requesting financial support should have all credentials forwarded by February 1. For additional information write to the Graduate Coordinator, Department of Pharmacology and Toxicology, P.O. Box 9223, WVU Health Sciences Center, Morgantown, WV 26506-9223.

Master of Science

Ordinarily the department does not accept graduate students solely into a master's program. However, the master's degree is offered and is available as an intermediate degree en route to the Ph.D. Its primary function, as viewed by the faculty, is as an aid to the student new to research for the formulation, conduct, and writing of an abbreviated, but complete, independent research project (thesis). The course work requirements for the M.S. in pharmacology and toxicology usually consist of Physiology 344 and 345, graduate biochemistry, Statistics 311, and Pharmacology and Toxicology 361, 364, 461, 462, and 497. Most students may, with the faculty's concurrence, choose to proceed directly with their doctoral research without a master's degree. These students must submit a comprehensive progress report on their research in lieu of a thesis.

Master's committees will consist of no fewer than three members with no more than one from outside the department, the majority of which will be regular members of the graduate faculty including the chairperson. No more than one person may be a non-member of the graduate faculty.

Doctor of Philosophy

Before official admission to candidacy for the doctorate, the student must satisfactorily complete a grant-writing exercise, an acceptable progress report, and an oral comprehensive qualifying examination. When a student has submitted a grant proposal, a committee—ordinarily consisting of at least three members of the Department of Pharmacology and Toxicology and two members from outside the department—is appointed and constitutes the oral examining body. The oral qualifying examination is administered in January of the student's third year in the program.

Dissertation

Upon admission to candidacy for the degree of doctor of philosophy, the candidate must select a topic for the dissertation under the direction of the candidate's adviser, complete a dissertation which makes a contribution to knowledge in the candidate's area of concentration, and pass an oral examination based primarily upon the dissertation. After successful completion of the oral examination and submission of the final copy of the dissertation, the candidate will be recommended for the degree.

Research Areas

Autonomic pharmacology: autonomic regulation of the cardiovascular system and of smooth muscle; sensitivity to neurotransmitters; electrophysiologic studies of cardiac and smooth muscle; receptors and second messengers.

Chemotherapy: antimalarial agents, role of ion channels in tumor development, effects of pharmacological agents on single-cell organisms.

Biochemical pharmacology: drug metabolism, effects of drugs on lipid and nucleic acid metabolism.

Endocrine pharmacology: molecular mechanism of action of steroids, metabolism of sex accessory tissues, relationship of hormones to tumor growth and development.

Neuropharmacology: biochemical and electrophysiological basis of epilepsy, neuromediators in the central nervous system, mechanisms of signal transduction, ion-channel pharmacology.

Toxicology: metabolism of toxic agents, pulmonary toxicology, renal toxicology, environmental toxicology, perinatal pharmacology and toxicology.

PHYSIOLOGY (MEDICAL)

David Kreulen, Ph.D., Chairperson

Matthew Boegehold, Ph.D., Graduate Coordinator

Degrees Offered:

Master of Science, Doctor of Philosophy

The Ph.D. program is designed to produce physiologists of high quality, capable of conducting independent research and being effective teachers. Students in our department are exposed to all aspects of physiology and a variety of related sciences. The master's program is designed as an introduction to research in physiology for students interested in, but not yet committed

to, a research career. Students in this program receive training in the fundamentals of physiology and experience in a research laboratory.

Admission Requirements

Applicants should have a strong background in biology and/or chemistry. In addition to a basic biology course, it is strongly recommended that applicants have taken cellular or molecular biology and an introductory physiology course; a course on comparative anatomy also provides particularly useful background information. Inorganic and organic chemistry are basic requirements, while physical chemistry is recommended but not required. Finally, as several areas of physiology require an understanding of the fundamentals of calculus and physics, introductory courses in these subjects are also essential.

The department requires the following materials for consideration for the M.S. or Ph.D. program: three letters of recommendation; transcripts of all undergraduate and graduate grades; a completed departmental application form; and Graduate Record Examination scores (general test). Students from non-English speaking countries also need a Test of English as a Foreign Language (TOEFL) score in excess of 550. A bachelor's degree, or equivalent, is required for admission; an M.S. degree is not a prerequisite for the Ph.D. program.

A complete application kit and detailed descriptions of the degree programs can be obtained by writing to the Graduate Coordinator, Department of Physiology, P.O. Box 9229, School of Medicine, West Virginia University, Morgantown, WV 26506-9229. Although applications may be submitted as late as May of the year of matriculation, applications must be received before February 1 to be considered for financial aid.

Master of Science

Prerequisites for admission to the master's program are the same as those for the doctoral program. The first two semesters are devoted largely to course work in physiology: ten hours of physiology, three hours of neurophysiology, and four hours of physiological methods. A two-semester course in cellular and molecular biochemistry is also required. Students are introduced to the research interests of the faculty through the graduate colloquium and rotations in some faculty members' laboratories. By the end of the second semester, students will have picked a thesis adviser and will begin work in that laboratory during the summer. The second year is spent primarily on research for and writing of the master's thesis. Students are required to take four hours of advanced physiology and present a research seminar during the second year.

Doctor of Philosophy

The first year curriculum familiarizes the student with the basic information and principles that form a background for advanced work in physiology. Much of this overlaps with the basic science material presented to medical students, so that all students attend several medical school courses, including physiology and neurophysiology. A two-semester cellular and molecular biochemistry course is also required. Finally, students lacking a statistical background are expected to take a basic statistics course.

In addition to this course work, students are introduced to the research interests of the physiology faculty through the graduate colloquium and rotations in some faculty members' laboratories. The latter are designed to help students choose a thesis adviser by exposing them to the experimental approaches and techniques used in different laboratories within the department.

During the first summer, students are expected to begin research projects in a departmental research laboratory of their choice. This allows a student to explore an area of research interest and to develop a working relationship with a faculty member without a firm commitment to pursue a dissertation project in that laboratory.

During the second year, the student combines course work with the continuing development of research interests. A graduate adviser is selected during this year. Courses include: advanced physiology (12 hours), graduate colloquium (two hours), graduate seminar (one hour), a teaching practicum (two hours), and research (nine hours).

The second-year curriculum takes the student beyond the medical curriculum, emphasizing critical appraisal of the current research literature. In addition, the student begins to develop his/her teaching skills. The purposes of the graduate colloquium and seminar are twofold. First, they give students an opportunity to become informed of the latest scientific advances. Secondly students have an opportunity to develop and practice presentation of research seminars. In addition to presentations by faculty and students from the Department of Physiology, faculty members from other departments at WVU and from other institutions are invited to present seminars in the program.

After successful completion of the second academic year, the student takes a two-part qualifying examination. The qualifying examination consists of a comprehensive written examination covering all of the major areas of physiology, followed by a written and oral research design examination. Upon successful completion of the qualifying examination, the student is admitted to candidacy for the degree of doctor of philosophy.

During the third and fourth years, the student may enroll in elective courses. Yearly participation in the teaching practicum provides additional experience in delivering lectures to undergraduate and professional students. However, the student's major effort is directed toward dissertation research. Results of this effort are presented annually in the graduate colloquium. During these years the student will attend and present papers at national meetings of scientific societies (e.g., American Physiological Society, Biophysical Society, Endocrine Society, Experimental Biology, Society for Neurosciences). The Ph.D. degree generally can be completed in four or five years.

Research and Instruction

Research areas: Faculty laboratories offer opportunities for research in cardiovascular, cell, endocrine, muscle, neural, renal, and respiratory physiology.

Doctor of Medicine Degree (M.D.)

The degree of Doctor of Medicine (M.D.) is granted to students who have completed the prescribed curriculum and who have been recommended for the degree by the faculty of the School of Medicine.

The M.D.-Ph.D. program is available to those students who show exceptional interest and scholarly promise. All of the admission requirements of the School of Medicine and the specific graduate program apply. Students apply for the combined degree program after acceptance into medical school. It is to be understood that the following information applies only to students in the School of Medicine who are enrolled in the prescribed curriculum which culminates in the M.D. degree. All other students, undergraduates, or graduates enrolled in other programs in the School of Medicine are governed by the policies found elsewhere in the *Health Sciences Center Catalog*.

Accreditation

The West Virginia University School of Medicine is accredited by the Liaison Committee on Medical Education (L.C.M.E.).

Admission Requirements

The student preparing for any career in the health professions must have a keen interest in the sciences. Science courses taken in high school should include as many biology, chemistry and physics courses as possible. A good background in mathematics is strongly recommended.

The following courses are required for consideration of an application to Medical School.

English	6 semester hours or equiv.
Biological Sciences (with lab)	8 semester hours or equiv.
Inorganic Chemistry (with lab)	8 semester hours or equiv.
Organic chemistry (with lab)	8 semester hours or equiv.
Physics (with lab)	8 semester hours or equiv.
Social or Behavioral Sciences	6 semester hours or equiv.

Calculus, biochemistry, and cell biology are strongly recommended. A total of 90 semester hours, exclusive of ROTC and general physical education, is required. Students must be prepared to take computer licensure examinations by 1988. All required courses must be passed with a grade of C or better.

An excess of credit hours or higher degrees does little to offset the disadvantage of low grades when being considered for admission to the School of Medicine. The practice of repeating courses to raise the grade is discouraged. Applicants who have been subject to suspension from West Virginia University or other medical schools can be admitted only in very exceptional cases and at the discretion of the Admissions Committee.

Pre-Admission Tests

The scores of the Medical College Admissions Test (MCAT) are one of the factors used by the admissions committee in considering an applicant for admission. The MCAT must be taken within two years of applying to medical school. It is recommended that students take the MCAT during the spring of their junior year in college. This allows for a repeat examination in the fall if necessary. Waiting until fall to take the test could jeopardize an applicant's opportunity since no application for admission is given final consideration until MCAT scores are received by the Admissions Committee. The MCAT score must be recorded prior to closing of admissions on November 15.

Information concerning the time and place of the test can be obtained from your premedical advisor, committee or the Office of Admissions and Records.

Application Procedure

The admission process is initiated by completing the American Medical College Application Service (AMCAS) forms. AMCAS packets may be obtained from the Office of Admissions and Records of the West Virginia University Health Sciences Center, or through most preprofessional advising offices.

Application for admission in August, 1996 should be made at the end of the 1994-95 school year. The last date for filing an application is November 15. The applicant should file as early as possible making certain that recent MCAT scores, current transcripts, and letters of recommendation are available to the Admissions Committee.

Preference in admission is given to West Virginia residents and those non-resident applicants who have strong ties to the state. No one specific factor is used to determine admission. However, careful consideration is given to those personal qualifications which apply to the study and practice of medicine. The criteria for admission include academic performance, course load, letters of recommendation, MCAT scores, motivation, interpersonal skills, and a personal interview.

No applicant is admitted before an interview by the Admissions Committee. All qualified residents of West Virginia are granted an interview. Qualified nonresident applicants are interviewed at the discretion of the Admissions Committee. Residency status is determined by the Board of Trustees Policy Bulletin #36. Interviews and consideration of applicants begin in September.

If an applicant is denied admission or does not enroll after acceptance, he/she must reapply in the regular manner for consideration in a subsequent year.

Advanced Standing

Advanced standing positions are offered only in very exceptional circumstances and only to students currently attending a medical school accredited by the Liaison Committee on Medical Education (L.C.M.E.). A request for transfer is usually considered during the second year. The application must be received no later than April 1. The applicant must present certification of good academic and professional standing in the school from which he/she is transferring. An official transcript of all prior medical school work is required from all medical schools attended. In addition, successful results of Step I of the United States Medical Licensure Examination must be available before action on an application can be finalized.

Conditions Following Acceptance

An applicant accepted into the first year or in advanced standing is expected to meet all entrance requirements and satisfactorily complete all undergraduate/medical school work in progress. A satisfactory performance in the completion of such work is defined as one which is consistent with the student's previous academic record. Failure to do so may result in the withdrawal of the acceptance by the Admissions Committee.

The student must be aware that furnishing or causing to be furnished false or incorrect information for the purpose of the School of Medicine application constitutes grounds for disciplinary actions, including, but not limited to, expulsion or revocation of the acceptance.

Students in the School of Medicine agree to abide by the provision of an integrity code, which requires ethical and moral standards of conduct in all situations. Each student is required to return a signed statement to the Office of Student and Curricular Affairs, indicating the student has read and understands the student Professional and Academic Integrity Code of the West Virginia University School of Medicine. The code and copies of the statement are available in the Office of Student and Curricular Affairs in the School of Medicine.

Prior to matriculation, all students must complete certain prescribed immunization and diagnostic procedures. Personal health insurance is strongly recommended.

Promotion and Graduation Requirements Evaluation of Student Progress

Promotion of a student in the M.D. degree program is evaluated in three major areas: 1) Successful completion of all required work; 2) Successful completion of Step I and Step II of the United States Medical Licensure Examination, and 3) Successful fulfillment of the professional standards of the School of Medicine.

The information which follows is only a brief outline of the School of Medicine policies and procedures. Detailed requirements and policies for evaluation of student progress and graduation may be found in the Policy on Academic and Professional Standards Governing the M.D. Degree Program at West Virginia University School of Medicine. Copies are available through the Office of Student and Curricular Affairs. The Committee on Academic and Professional Standards administers all promotion and dismissal rules.

Academic Course Work Review

The Committee on Academic and Professional Standards of the School of Medicine reviews the performance of each student in every course at the end of each academic period and makes recommendations to the Dean. If a student has been found to have an unsatisfactory performance in any of the required courses, dismissal from the school may be recommended. In selected circumstances, the committee may recommend remedial work or repetition of all or a portion of the curriculum. Exceptions may be made only on recommendation of the committee. The application of rules on dismissal is not automatically changed by removal of incomplete (I) grades or by the repetition of courses in other medical courses.

It is the policy of the School of Medicine that the departments conduct examinations of various types from time to time to help in the overall evaluation of student progress. In addition to the departmental examinations, other examinations may be conducted at times for other purposes. At the end of the first year a comprehensive examination, designed on an interdepartmental basis, may be required as a test of readiness for promotion.

Rarely, a student may be subject to remedial work or dismissal on recommendation of the Committee on Academic and Professional Standards to the dean even though no Unsatisfactory (U) grade has been received in a required course. Such an unusual event would occur only if, in the opinion of the Committee, the student's overall performance does not meet the academic/professional standards of the School of Medicine.

Readmission of a dismissed student is the prerogative of the Admissions Committee after careful review of the student's performance, including but not limited to, recommendations of the Committee on Academic and Professional Standards.

Grading Policy

All courses required for the M.D. Degree are graded as Honors (H), Satisfactory (S), or Unsatisfactory (U) at the completion of the course in lieu of other letter grades. The H, S, and U designation is accompanied by a narrative report of the student's progress, noting any factors requiring remedial work or counseling. The narrative is submitted by each course and filed in the Office of Student and Curricular Affairs. The U shall be regarded as a failing grade and all University regulations regarding a failed course shall then apply.

The grade of incomplete (I) is given when the instructor believes that the work is unavoidably incomplete or that a supplementary examination is justifiable. If a grade of I is not removed by satisfactory completion of the work before the end of the next semester in which the student is in residence, it becomes a failure (unsatisfactory) unless special permission to postpone the work is obtained from the Committee on Academic and Professional Standards (University rule). It is the responsibility of the student to consult the instructor about the means and schedule for making up incomplete courses.

No student will be permitted to register for any work of the second or subsequent year until all courses for the year before have been completed successfully.

All students who have a health problem which they feel may be causing difficulty with their academic progress are strongly advised to notify the Associate Dean for Student and Curricular Affairs.

United States Medical Licensure Examination (USMLE)

All states require that physicians be licensed to practice medicine. Satisfactory completion of all portions of the United States Medical Licensing Examination (USMLE) is the only mechanism by which this license may be obtained. The School of Medicine requires successful testing of Step I and Step II for promotion and graduation. A failing grade will delay progress and require remediation. USMLE regulations and School of Medicine policy limits a student to three attempts of all steps.

Step I is required upon successful completion of all basic science course work. A passing grade in Step I is required for promotion into the clinical rotations. Step II is required after successful completion of third year clinical rotations. A passing score on Step II is required before a recommendation can be made to grant the M.D. degree by the School of Medicine faculty and Committee on Academic and Professional Standards.

Professional Standards Review

All nondisciplinary matters are governed by the concept of academic due process.

Upon concurrent recommendation of the Admissions Committee, the Committee on Academic and Professional Standards, and the departments concerned, a limited number of students may be admitted to the School of

Medicine to follow a special schedule reflecting the student's individual needs to complete requirements for the M.D. degree.

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession. In all other matters, due process principles shall apply. For further information the reader is referred to The Policy on Academic and Professional Standards Governing the M.D. Degree Program at West Virginia University School of Medicine, which is available at the School of Medicine Office of Student and Curricular Affairs.

Departure from Scheduled Work

Medical students are registered for all prescribed courses for each semester except by special permission from the Committee on Academic Standards of the School of Medicine. This permission is not valid until it has been reported to the Assistant Director of Admissions and Records, Health Sciences Center, and for record, The Office of Student and Curricular Affairs, School of Medicine.

Interruption of academic work must be approved by the Office of Student and Curricular Affairs.

Curriculum

The field of medicine is rapidly changing. The following curriculum outline is the plan that is presently in place. However, the medical school curriculum at West Virginia University will change as needs dictate.

First and Second Years

The curriculum in medical school can be divided into two phases. The first two years are devoted largely to the basic sciences, including anatomy, biochemistry, physiology, microbiology, pathology, and pharmacology. There is an Introduction to Clinical Medicine course during the second year utilizing faculty-mentor teaching, as well as courses in Behavioral Science and Genetics. See the Medicine I and Medicine II charts for representative schedules.

Clinical Years

The last two years of study take place in the clinics and hospitals where students have the opportunity to help diagnose and treat patients under supervision of the full-time faculty and staff. All students will serve a significant portion of the clinical years training at an off campus or rural site.

Third Year

The third year is structured and the student must spend a designated period of time in each of the major clinical disciplines. This gives the student a foundation in history-taking, examination, patient relations, laboratory aids, diagnosis, treatment, and use of the medical literature in the major clinical disciplines.

A number of third-year students are selected during their first year to spend the third and fourth year at the Charleston Division of the Robert C. Byrd Health Sciences Center of West Virginia University.

Fourth Year

The fourth year is a partially structured and partially elective year. Each student works with an adviser to select the program best suited to the individual's abilities and goals. The courses selected are subject to the approval of the Associate Dean in the Office of Student and Curricular Affairs.

Five months of the senior year are committed to required clerkships which include one month in Internal Medicine, Family Medicine, or Pediatric Sub-Internship; one month in Critical Care/Anesthesia; one month of Surgery or Surgical Sub-specialties; and two months of rural Primary Care. The remainder of the senior year is elective.

Four months of the senior year must be spent at clinical sites on the campuses at Morgantown and Charleston, or at approved teaching sites throughout West Virginia. A catalog is available from the Office of Student and Curricular Affairs that lists the approved electives.

Students interested in other extramural opportunities are advised to consult with the fourth-year curriculum coordinator in the Office of Student and Curricular Affairs. Elective time must be spent in L.C.M.E. (Liaison Committee on Medical Education) or JCAH (Joint Council of American Hospitals) accredited institutions. Foreign rotations, regardless of sponsorship, are limited to one month credit.

Every fourth-year student has the opportunity for two weeks of vacation. The student may alternatively choose a clinical exercise for vacation time.

First Semester	
Weeks	5 10 15
Hours 4	Physiology 344
8	
12	Gross Anatomy 303
16	
20	
24	Biochemistry 231
28	
32	Elective and Study Time
36	

Second Semester	
Weeks	5 10 15
Hours 4	Neurobiology 375
8	
12	Microanatomy 305
16	
20	Physiology 345
24	Epidemiology 322
28	Behavi. Med. & Psych. 311
32	Elective and Study Time
36	

First Semester				Second Semester						
Weeks		5	10	15	Weeks		5	10	15	
Hours	4	Pathology 351			Hours	4	Pathology 352			
	8					8				
	12	Microbiology 301				12	Pharmacology and Toxicology 361			
	16					16				
	20					20				
	24	Behav. Med. & Psych. 321				24	Community Medicine 312			
	28	Intro to Clinical Medicine 321				28	Intro to Clinical Medicine 322			
	32					32				
	36	Elective and Study Time				36				

Medicine II

Weeks

8	Medicine
8	Surgery
8	Behavioral Medicine and Psychiatry with two weeks of Neurology
8	Obstetrics and Gynecology
8	Pediatrics
8	Family Medicine including Rural Rotation
48	Total

Medicine III Clerkships

Community Health Promotion

Kenard McPherson, Ed.D., Program Director
147 Coliseum

Degree Offered:

Master of Science in Community Health Promotion

The community health promotion program offers a master of science degree with majors in community health education and school health education. The community health education emphasis includes a clinical or research option. The purpose of the program is to prepare health professionals to interface between communities and health care systems. Community health professionals serve as partners in the health care team and provide leadership in planning, developing, organizing, implementing and evaluating health promotion programs.

Health promotion graduates may be employed as school health educators, community health educators, wellness center program managers, and health promotion specialists in corporations, health agencies, or state/county health departments.

Admission

Applicants to the degree program must hold a bachelor's degree from an accredited college or university, meet university admission standards, and demonstrate academic achievement in previous studies. Applicants for the school health education emphasis must hold a West Virginia teaching certificate or be in the process of obtaining certification.

Grade-Point Average

Applicants must have attained a GPA of 3.0 or better at the bachelor's or master's level to be accepted as a regular graduate student. Applicants with a GPA between 2.50 and 2.99 may be accepted on a provisional basis. Applicants meeting admission requirements may not be accepted if program enrollment maximum level has been reached. Preferential admission is given to the best qualified students fulfilling one or more of the following qualifications:

- At least two years of full-time professional work experience in the health or human services field.
- Breadth and depth of academic preparation in the biological or health sciences.
- Bachelor's degree in health education or health promotion.

Applicants are regularly admitted for the fall term. Preference is given to early applicants meeting all admission requirements by March 1 of the year in which the applicant intends to begin the program. Under unusual circumstances, applicants may be admitted during the spring or summer terms.

Students in the community health education master's program complete a clinical or a research emphasis. Students selecting the clinical emphasis complete 48 hours of study (36 hours of coursework and a 12-hour practicum). Required CHPR courses are CHPR 310, 311, 312, 334, 335, 338, 348, and COMM 376. In addition to the 24 hours of required courses, students must take 12 hours of electives approved by the student's faculty committee. They may

choose from topical areas such as substance abuse, injury control, wellness, evaluation, and epidemiology. The practicum (CHPR 350) is designed for students without professional health promotion-related work experience. For students without work experience, 12 hours of CHPR 350 are required. Experienced (more than two years) health promotion professionals may receive credit based upon their work experience in lieu of the practicum. Partial credit for CHPR 350 for students with less than two years of professional health promotion-related work experience may be determined by the student's faculty committee.

Students in the research emphasis complete 36 credit hours. Required CHPR courses are CHPR 310, 311, 312, 334, 335, 397 (six hours), and COMM 376. In addition to the 24 hours of required courses, students must take 12 hours of electives from health promotion, epidemiology, statistics, research, and scientific methods courses. Electives must be approved by the student's faculty committee.

The school health education emphasis is **open only** to students who hold a West Virginia teaching certificate or who are eligible for certification. Students must complete 48 credit hours. Required CHPR courses are CHPR 301, 307, 220 or 309, 310, 311, 312, 334, 335, 338, and 348. In addition to the 30 hours of required courses, students must take 18 hours of electives approved by the faculty committee.

Recommended Sequence of Courses

Community Health Education

Fall (First Semester): CHPR 310, 311, 312, and 376;

Spring (Second Semester): CHPR 334, 335, 338, and 348;

Summer (Third Semester): CHPR 314 and 333;

Fall (Fourth Semester) CHPR 350 (if needed).

School Health Education

Fall (First Semester): CHPR 301, 310, 311, and 312;

Spring (Second Semester): CHPR 307, 334, and 335;
three hours of electives.

Fall (Third Semester): CHPR 309; nine hours of electives;

Spring (Fourth Semester): CHPR 338 and 348;
six hours of electives.

Exercise Physiology

Rachel A. Yeater, Ph.D., Director

Degrees Offered:

Bachelor of Science

Master of Science

Doctor of Education (administered by the School of Physical Education)

Introduction

The WVU exercise physiology program was established in the Robert C. Byrd Health Sciences Center's School of Medicine in July 1993. Prior to that time, the exercise physiology program was administered in the School of Physical Education. The program offers a four-year curriculum leading to a bachelor of science degree in exercise physiology. The bachelor of science

in exercise physiology is a preparatory program for graduate or professional school. Graduates continue their education in areas such as exercise physiology, physical therapy, or medicine. The program is designed to provide students a background in basic science and exercise physiology, as well as courses in nutrition, athletic training, first aid and emergency care, and business.

Exercise Physiology-The profession

Exercise physiologists are trained to evaluate people in the areas of cardiovascular fitness, muscular strength and endurance, flexibility, neuromuscular integration, and body composition. They are also trained to provide exercise programs, based on the results of these evaluations, that are designed to increase the functional capacity of the participants. Exercise physiologists work with athletes, patients, or health participants in the areas of disease prevention in wellness programs or rehabilitation in hospital settings. The bachelor of science program is a preparatory program for graduate school. Graduates of this program continue their studies in exercise physiology, physical therapy, medicine, or other health-related careers. Graduates of the master of science or doctoral program find employment in corporate wellness, hospital rehabilitation, or higher education. Additionally, they may be employed in a wide variety of private, community, state, and national agencies. Exercise physiology is an evolving field that is becoming increasingly important with the integration of preventive medicine into the health care system. Employment opportunities are expanding and increase with experience and level of education.

Bachelor of Science

Admission

Students must meet the minimum requirements for WVU for admission to the program. Students must complete one year of pre-exercise physiology courses with at least a 2.75 grade point average. All required courses must be completed with a C or better.

The prerequisite course requirements include:

English: six hours of composition and rhetoric (ENGL 1 and 2)

Biology: eight hours of general biology (BIOL 1, 2, 3, and 4)

Mathematics: six hours of college algebra and trigonometry (MATH 3 and 4)*

First Aid and Emergency Care: 3 hours (CHPR 72)

Liberal Studies Cluster Courses: 12 hours from Cluster A and/or B

*Math 15 or 128 can be substituted for Math 3 and 4

Program Requirements

Students must complete the university requirements for the liberal studies program (including 12 hours Cluster a and 12 hours Cluster B). Students must complete the following courses or course equivalents in theory and foundation to meet the exercise physiology program requirements:

Course	Hours	Course Title
SS 198	3	<i>Special Topics: Sports and the Courts</i>
CHPR 72	3	<i>First Aid and Emergency Care</i>
PET 75	3	<i>Motor Learning and Development</i>
ATTR 121	3	<i>Sport Injury Control and Management</i>
ATTR 219	3	<i>Gross Anatomy</i>
EXPH 164	3	<i>Kinesiology</i>
EXPH 165	3	<i>Physiology of Motor Activities</i>
EXPH 197	6	<i>Internship</i>
EXPH 198	3	<i>Special Topics: Conditioning Techniques and Methods</i>
EXPH 198	3	<i>Special Topics: Senior Paper</i>
MATH 3	3	<i>College Algebra*</i>
MATH 4	3	<i>Plane Trigonometry*</i>
PHYS 1	4	<i>Introductory Physics</i>
PHYS 2	4	<i>Introductory Physics</i>
CHEM 15	4	<i>Fundamentals of Chemistry</i>
CHEM 16	4	<i>Fundamentals of Chemistry</i>
CHEM 133 & 135	4	<i>Organic Chemistry I</i>
CHEM 134 & 136	4	<i>Organic Chemistry II</i>
BIOL 1 & 3	3	<i>General Biology**</i>
BIOL 2 & 4	3	<i>General Biology**</i>
PSIO 141	4	<i>Elementary Physiology</i>
HN&F 71	3	<i>Introduction to Human Nutrition</i>
BUSA 120	3	<i>Survey of Management</i>
BUSA 130	3	<i>Survey of Marketing</i>
STAT 101	3	<i>Elementary Statistical Inference</i>

Suggested Electives: Biology 19 (4 hrs.) and Biochemistry 139 (3 hrs.)

* Students may take MATH 15 (Calculus) or 128 in place of MATH 3 and 4.

** Students may take BIOL 15 & 17 in place of BIOL 1-4

Students must have a grade of C or better in all required courses. Science courses must be taken at WVU. Students must have a minimum of 128 hours to graduate. Students must maintain a cumulative GPA of 2.5 or better to remain in the program.

Master of Science

The master of science in exercise physiology provides coursework that prepares the student for careers in adult fitness, hospital or corporate-based wellness programs, or cardiac rehabilitation. Students specialize by completing a 200 hour clinical internship. A thesis option is also available.

Admission

Fifteen students are accepted once a year (by May 30) on a competitive basis. Applicants must have a baccalaureate degree in an allied field from an accredited institution with a minimum undergraduate grade-point average of 2.75 (based on A=4.0 grade points). Three letters of reference are required. Applicants are selected for admission on the basis of scholastic standing (special attention is given to science grades), and recommendations. The graduate application, three letters of reference, and college transcripts must be submitted by April 15.

Program Requirements

A minimum of 36 semester hours of credit is required for graduation. The student, adviser, and graduate committee will develop a plan of study at the end of the first semester of graduate work. The plan of study includes both the required courses and elective courses that are appropriate for each individual student.

The following course equivalents are required:

Course	Hours	Course Title
ATTR 218	1	<i>Gross Anatomy Lab</i>
ATTR 219	3	<i>Gross Anatomy</i>
PSIO 241	4	<i>Mechanisms of Body Function</i>
PHAR 249	3	<i>Drugs and Medicines</i>
HN&F 310	3	<i>Human Nutrition</i>
EXPH 367	3	<i>Theories of Sport Physiology</i>
EXPH 491A	3	<i>Advanced Study: Laboratory Techniques</i>
EXPH 491B	3	<i>Advanced Study: Diabetes and Exercise</i>
EXPH 491C	6	<i>Internship</i>
EXPH 492	3-6	<i>Stress Testing</i>
STAT 311	3	<i>Statistical Methods</i>

If the student chooses the thesis option, the following courses are required:

EXPH 498	3	<i>Dissertation/Thesis Seminar</i>
EXPH 497	3	<i>Research</i>

Medical Technology

Jean D. Holter, Ed.D., Director

Degrees Offered:

Bachelor of Science, Master of Science

Introduction

The WVU School of Medicine admitted the first medical technology students in the 1945-1946 academic year. In 1987, the program started a part-time curriculum, a refresher curriculum, and a career-laddering mechanism with Allegany Community College, West Virginia Northern Community College, and Fairmont State College.

The primary aim of the undergraduate medical technology program is to provide a strong educational background in the clinical laboratory sciences.

The purposes are:

- To provide a program that meets the academic standards of the University;
- To provide medical technologists for hospitals, public health, and research laboratories;
- To prepare medical technologists for teaching and supervisory positions;
- To provide an educational background accepted for graduate work.

The primary purpose of the graduate program in medical technology is to prepare students as supervisors of hospital clinical laboratories, to teach a specific laboratory area, and to direct a medical technology program.

Ruby Memorial Hospital (WVU Hospitals, Inc.), is the primary teaching hospital for the medical technology program. The hospital is part of the Robert C. Byrd Health Sciences Center of West Virginia University. The hospital is a tertiary care teaching hospital and referral center; it is a 376 bed facility. The clinical laboratories are on the third floor and occupy approximately one-fourth of the floor. The laboratories are full-service including hematology, chemistry, special chemistry, radioimmunoassay, blood bank, microbiology, mycology, virology, and immunology. Satellite laboratories are available in the Physician Office Center and the Cancer Center. Students may be required to fulfill part of their rotations at extramural sites in West Virginia.

The medical technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The present accreditation, for five years, will be reviewed in 1995.

Admission Requirements

Premedical Technology

Admission requirements for the first year (premedical technology) are the same as those for the College of Arts and Sciences

Medical Technology Program

Admission to the medical technology program includes course requirements, grade-point average, a personal interview, letters of recommendation, and the Allied Health Professions Admissions Test (AHPAT).

The prerequisite course requirements are:

English: six hours of composition and rhetoric (ENGL 1 and 2)

Biology: eight hours of general biology (BIOL1, 2, 3 and 4)

Chemistry: 12 hours: eight hours of inorganic chemistry (CHEM 15 and 16) and four hours of organic chemistry (CHEM 131)*

Physics: eight hours of general physics (PHYS 1 and 2)

Mathematics: six hours; minimal requirements are college algebra and trigonometry (MATH 3 and 4)

Liberal Studies Program: 21-24 hours of electives; 12 hours each of Cluster A and Cluster B

*Transfer students must complete an organic chemistry course(s) (8 hours) that includes aliphatic and aromatic compounds. The course must include a laboratory. Any student not completing CHEM 131 must take CHEM 133 and 135, 134 and 136, or an equivalent.

Applicants should have a minimum grade-point average of 2.5 (cumulative and science). Applicants may be admitted on probation if their grade-point average (cumulative or science) is less than 2.5. Applicants with less than a 2.0 grade-point average, either cumulative or science, will not be admitted. A grade-point average of 2.5 or above does not necessarily assure admission.

A personal interview with the Medical Technology Admission Committee is required.

Two letters of recommendation from instructors in physics, chemistry or biology are required.

Allied Health Professions Admissions Test (AHPAT) must be taken prior to applying to the Medical Technology Program. Testing is available at WVU in November and January. Further information can be obtained from the Medical Technology Program Office.

Admission of international students is in compliance with West Virginia University regulations. At least one science course (chemistry, physics, or biology) must be completed at an institution of higher education in the United States.

Application Procedure

Application forms for admission to the professional program are available after December 1 from the Office of the Assistant Director of Admissions and Records, West Virginia University Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815. There is an application fee of \$10.00. The priority date for returning the application form is January 15. The deadline date is February 1 if the student expects to enter the program the next fall semester.

Students at West Virginia University or Potomac State College are not transferred automatically from the preprofessional course to the professional course. Students are selectively admitted to the program.

Certification

Graduates from the medical technology program at West Virginia University are eligible to take national examinations for certification as medical technologists or clinical laboratory scientists. These examinations are conducted by national certification agencies such as American Society of Clinical Pathologists and the National Certification Agency. Many institutions require certification for employment.

Graduation Requirements

Junior Year: A student must maintain a grade-point average of 2.0 for each semester to be advanced to the senior year. Any student having one or more F's in a semester or more than one D at the end of the junior year will be suspended from the program. The Academic and Professional Standards Committee must recommend any student for advancement to the senior year. A satisfactory grade-point average does not assure advancement.

Senior Year: A student must maintain a grade-point average of 2.0 for each semester of the senior year. Graduation requires satisfactory completion of all academic work. Graduation requires the recommendation of the faculty of the School of Medicine.

Curriculum Plan

PRE-MEDICAL TECHNOLOGY

First Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
CHEM 15 Inorganic	4	CHEM 16 Inorganic	4
Elective*	3	ENGL 1 Comp. & Rhet	3
MATH 3 Algebra	3	MATH 4 Trigonometry	3
BIOL 1&3	4	BIOL 2 & 4	4
MTEC 1**Orientation	2		14
	<u>16</u>		

Second Year

First Semester	Hrs.	Second Semester	Hrs.
Electives*	9	CHEM 131—Organic	4
PHYS 1	4	Electives*	6-9
ENGL 2 Comp. & Rhet.	3	PHYS 2	4
	<u>16</u>		<u>14-17</u>

* Electives from Cluster A and Cluster B are to be selected to meet the Liberal Studies Program requirements.

**MTEC 1 is not a required subject. It is highly recommended that all students take this course. MTEC 1 is offered each semester.

MEDICAL TECHNOLOGY

Third Year (Medical Technology 1)

First Semester	Hrs.	Second Semester	Hrs.
MTEC 100	4	MBIO 224	1
MTEC 202	2	MBIO 223	5
BIOC 139	5	MTEC 101	4
PHYS 241	4	MTEC 210	1
Elective	3	MTEC 291	2
	<u>18</u>	MTEC 229	1
			<u>14</u>

Fourth Year (Medical Technology 2)

Students receive didactic and clinical instruction in the WVU Hospitals, Inc. laboratories after completion of the junior year. The course of study begins with the summer session and covers three academic semesters. If the student has excessive absences during the senior year, competencies not completed must be made up during the summer sessions.

Students register for the following courses during the three semesters of study.

	Hours
MTEC 200 <i>Orientation</i>	No Credit
MTEC 201 <i>Phlebotomy</i>	1
MTEC 220 <i>Immunohematology and Blood Banking</i>	2
MTEC 221 <i>Immunohematology and Blood Banking Laboratory</i>	5
MTEC 230 <i>Clinical Chemistry</i>	2
MTEC 231 <i>Clinical Chemistry Laboratory</i>	5
MTEC 240 <i>Clinical Hematology</i>	2
MTEC 241 <i>Clinical Hematology Laboratory</i>	5
MTEC 250 <i>Clinical Microbiology</i>	2
MTEC 251 <i>Clinical Microbiology Laboratory</i>	5
MTEC 260 <i>Instrumentation</i>	2
MTEC 265 <i>Laboratory Management</i>	2
MTEC 270 <i>Clinical Microscopy</i>	1
MTEC 271 <i>Clinical Microscopy Laboratory</i>	1
MTEC 275 <i>Medical Relevance of Laboratory Analysis</i>	1
MTEC 280 <i>Clinical Immunology</i>	3
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Master of Science

Program in Medical Technology

Admission

Applicants must have a baccalaureate degree in medical technology or an allied health field from an accredited college or university and must be a certified medical technologist with an acceptable certifying agency.

The area of concentration desired by the student is considered in the undergraduate record evaluation as follows:

Individuals who desire to do special study in clinical chemistry, hematology, or immunohematology must have completed a minimum of eight hours in physics, three hours in mathematics, and 12 hours in chemistry to include organic chemistry. Individuals who desire to do special study in microbiology must have completed a minimum of 12 hours of chemistry including organic chemistry and 16 hours in the biological sciences.

A minimum of one year's experience in a clinical laboratory is required. Applicants must have a minimum undergraduate grade-point average of 2.5 (based on a 4 point scale). Results of the aptitude portion of the Graduate Record Examination must be presented. Two professional letters of recommendation are required.

Application Procedure

A preliminary application is filed in the medical technology program office, along with two reference letters and the results of the aptitude portion of the Graduate Record Examination. These three items are reviewed, and if all prerequisites are met, the applicant must make formal application to West Virginia University. Once the formal application and grade transcripts are received, the file is reviewed by the Admissions Committee. A personal interview is required before final admission to the program.

Graduation Requirements

- Satisfactory completion of all course work with a 3.0 GPA.
- A problem study in the major/minor area.
- Successful completion of a written comprehensive examination in major and minor interest fields.
- Successful completion of an oral defense of the problem study.

Master of Science

It is expected that the students who enter the graduate program in medical technology at West Virginia University will have a goal in mind and will have a special field of interest in medical technology. The course of study the student follows is tailored to the needs of the student as far as it is possible to do so. A minimum of 36 semester hours of credit, including a problem study, is required for the degree.

The student selects:

- A major area of concentration from education, supervision, or administration.
- A minor area from clinical microbiology, clinical chemistry, clinical hematology, or immunobiology.

A minimum of 15 semester hours of work from the following courses is selected, dependent upon the major area of concentration.

Required Course	Hours
Educational Psychology 320 Introduction to Research	3
If the major area is education, the following courses are available:	
CHPR 320 <i>Roles and Functions of Health Education</i>	3
ED A 320 <i>Personnel Administration</i>	3
ED A 351 <i>Administrative Procedures in Adult Education</i>	3
ED A 462 <i>Higher Education Law</i>	3
ED A 463 <i>Higher Education Finance</i>	3
ED F 320 <i>Philosophic Systems and Education</i>	3
If the major area is supervision and/or administration, the following courses are available:	
ED A 320 <i>Personnel Administration</i>	3
ED A 462 <i>Higher Education Law</i>	3
ED A 463 <i>Higher Education Finance</i>	3
PUBA 341 <i>Administrative Organization and Management</i>	3
PUBA 344 <i>Public Personnel Administration</i>	3
PUBA 345 <i>Public Administration and Policy Development</i>	3
The following courses are available for either major for additional credit:	
ED P 231 <i>Sampling Methods</i>	3
ED P 260 <i>Media and Microcomputers in Instruction</i>	3
ED P301 <i>Introductory Behavior Analysis</i>	3
ED P321 <i>Design of Experiments</i>	3
ED P 343 <i>Statistical Analysis in Education</i>	3
ED P364 <i>Precision Teaching</i>	3
ED P370 <i>Programmatic Research</i>	3
CHPR 308 <i>Community Health: Death Education</i>	3
CHPR 309 <i>Community Health: Drug Education</i>	3

Students may select courses in schools and colleges at West Virginia University other than the School of Medicine. Courses in management, economics, and education are available, as well as courses in the scientific disciplines of medical technology.

A course in statistical methods such as Educational Psychology 311, Statistics 311, or Community Medicine 311 is strongly recommended.

All students must complete a minimum of 18 semester hours in a science related to medical technology including MTEC 300 *Seminar* (three hours) and MTEC 397 *Problem Study* (six hours).

All full-time students register for one hour each semester in MTEC 300. Seminars include laboratory management, education in medical technology, and timely topics. A minimum of three hours of seminars to include all three of the above topics is required.

All students are required to pursue study on a problem in their areas of concentration. This study is reported in a thesis-style manuscript. For this study and report, students register in MTEC 397.

The total number of hours in MTEC 397 is determined by the student's program adviser. As many as nine semester hours in MTEC 397 may be taken during one semester or, by arrangement with the adviser, credit hours may be taken over several semesters. In the final compilation for degree requirements, only six semester hours in MTEC 397 will count toward the fulfillment of the 36 required semester hours for the degree, even though the student may have registered for as many as 15 hours in MTEC 397.

At the discretion of the student's program adviser, other requirements in teaching, supervision, and administration may be necessary. The adviser works out with the student a plan of study for the student's entire graduate program. This plan is made at the end of the first semester of the student's graduate study. A copy of this plan of study is filed in the Health Sciences Center Graduate Programs Office. The student's problem study committee is also formed at this time.

Physical Therapy

MaryBeth Mandich, P.T., Ph.D. , Interim Chair.

Degree Offered:

B.S. in Physical Therapy

Nature of Program

The WVU Physical Therapy Program was established in 1970 under the auspices of the School of Medicine to help meet the need for physical therapists in West Virginia. The program is accredited by the Commission on Accreditation in Physical Therapy Education, a specialized accrediting body recognized by the Council on Postsecondary Accreditation. One class of 28 full-time students is accepted each year for the final years of a baccalaureate degree program.

Students admitted into the program complete nine semesters (four are summer sessions) of combined classroom, laboratory and clinical education, both part-time and full-time supervised clinical practice in various clinics in West Virginia and other states. A bachelor of science degree is awarded to those completing the program, and entitles the graduate to apply for examination for state licensure. A license to practice physical therapy is required by all states.

Admission Requirements

Recommended high school preparation for physical therapy includes courses in biology, chemistry, algebra, trigonometry, physics, and social sciences. Typing and familiarity with computers are advised.

Because individualized instruction in laboratories and clinics is an essential component of the program, enrollment must be limited. All students who wish to enter the program must apply for admission and must have completed or be enrolled in the courses listed below. These courses are available at most colleges and usually require two years to complete. Students with degrees in other fields are welcome to apply, but must also complete these courses.

Courses Required for Application	Sem. Hr.	WVU Courses
Pre-Physical Therapy Courses		
Biology (with lab)	8	BIOL 1, 2 & 3, 4
Chemistry (with lab)	8	CHEM 15 & 16
Physics (with lab)	8	PHYS 1 & 2
Introductory Psychology	3	PSYC 1
Developmental Psychology (life-span)	3	PSYC 141
Introductory Statistics	3	STAT 101

WVU Liberal Studies Requirements

English Composition	6	ENGL 1 & 2
Cluster A courses*	12	
(Humanities and Fine Arts; courses in three disciplines, including two courses in one discipline)		
Cluster B courses*	6	
(Social and Behavioral Sciences; two courses in two different disciplines, neither of which is psychology)		

* See Liberal Studies section of the catalog for specific courses acceptable in each Cluster. Three hours in either Cluster A or Cluster B courses must focus substantially on the study of a foreign or minority culture or on women and/or issues of gender.

The courses listed are minimum requirements for application. Other recommended courses are human anatomy and human nutrition. Students are encouraged to pursue studies in additional courses of interest. Students who wish to substitute a course for one of those listed should contact the Division of Physical Therapy for permission and provide a written description of the proposed substitute.

Applicants must have a minimum cumulative and a minimum pre-physical therapy science. All applicants must have taken the Allied Health Professions Admission Test prior to the application deadline, and submit two recommendations from physical therapists (not relatives) with whom they have worked in clinical settings. A minimum of 60 hours of clinical volunteer or work experience is recommended. It is suggested that this experience be in at least two different settings.

Preference is given to West Virginia Residents. A limited number of non-residents who have attended a West Virginia college or university, or who have other strong ties to the state, may also be considered.

Applicants who complete any of their pre-requisite courses at a college or university outside West Virginia must submit a catalog or photocopy of the catalog description for all pre-requisite courses taken.

Application forms are available beginning December 1 from the Office of Admission and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815. All application materials must be received from the applicant no later than February 15. Qualified applicants are interviewed by the Physical Therapy Admissions Committee. Those considered to demonstrate the greatest potential for success are recommended for admission into the program.

Graduation Requirements

Students admitted into the program must complete all required courses of each term with a grade of at least C or P in each, and must maintain a minimum GPA of 2.5 each term. Any student who does not meet these requirements may be placed on probation, suspended, or dismissed from the program. The Division of Physical Therapy reserves the right to suspend or dismiss any student who does not perform at an overall level considered satisfactory for patient care.

In the second semester of the junior year, the student will begin part-time clinical rotations at affiliate sites under the supervision of a physical therapist. During a summer session after the junior year, the student will participate in one full-time clinical rotation for four weeks. In the Senior year, the student will continue with clinical experiences during each semester.

After satisfactorily completing all the course work, the student will participate in three different clinical rotations for a total of 24 weeks. Clinical affiliation sites are in West Virginia and other locations. Students must be prepared to pay for travel, meals, and lodging while participating in clinical rotations.

Required Physical Therapy Curriculum

JUNIOR YEAR

Summer II

ANAT 102 3

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
PATH 128	2	ANAT 308	2
PHYS 241	4	PT 112	3
PT 110	3	PT 114	3
PT 111	1	PT 116	3
PT 117	3	PT 118	3
PT 120	3	PT 130	3
	<u>17</u>		<u>17</u>

Summer I or II

PT 116 0-3

SENIOR YEAR

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
PT 271	4	PT 270	4
PT 273	4	PT 272	2
PT 275	3	PT 274	3
PT 277	2	PT 276(Not required)	(3)
PT 279	4	PT 278	5
PT 281	1	PT 282	1
	<u>18</u>	PT 285	3
			<u>18</u>

Summer I

PT 290 0-3

Summer II

PT 290 0-3

Fall

PT 290 0-3

Public Health

Institute of Occupational and Environmental Health
 John Pearson, M.D., Chairperson of the Department
 John Coumbis, M.D., Graduate Program Coordinator, Associate Director,
 Occupational and Environmental Medicine Residency Program

Degree Offered: Master's in Public Health

The MPH program is currently structured to meet the needs of physicians preparing for a career in occupational and environmental medicine or related public health fields. Students learn how to identify and analyze determinants of health in large industrial or community populations with biostatistical and epidemiological methods. Students are instructed in research methods and in

methods for effecting and evaluating changes in the health of the target populations through complex multidisciplinary collaboration and interaction with representatives from industry, government, labor, and other organizations.

As the nation moves to reform its health care system, public health considerations will shape future health care policy. The emerging system will be driven by the needs of the collective national population rather than by the desires of individual health care consumers or providers. A multidisciplinary effort will be required to develop and manage a system that ensures universal access and appropriate care on a limited budget. This critical approach to population-based health care defines the essence of public health. Health care workers of all kinds (health care providers, educators, legal experts, system experts, financial managers, and others) will need training in biostatistics, epidemiology, and other areas of public health practice to function effectively in the future.

Contact Dr. Coumbis for information about the availability of a non-physician track that is planned for 1996.

- Increase the number of active public health trained professionals.
- Enhance the effectiveness of health care workers to respond to the public health needs of the population they serve.
- Encourage research in public health that could ultimately benefit a given community and further the science.
- Provide training in fundamental public health skills: epidemiology, biostatistics, occupational health, and environmental health.
- Improve workplace and environmental health in this region.
- Completion of an accredited medical school and one year of ACGME-approved post graduate training.
- Evidence of scholastic and clinical achievement (such as a minimum GPA of 3.0)

The documentation required for an application for admission include the following:

- Medical school diploma and PGY-1 certificate
- Medical school transcripts
- Three letters of recommendation
- Current curriculum vitae

These documents should be forwarded to John J. Coumbis, M.D., WVU School of Medicine, P.O. Box 9190, Morgantown, WV 26506-9190

Students are expected to maintain a 3.0 GPA. A faculty review is required if two grades of C or less are recorded. Three grades of C or lower will result in academic suspension.

Grades lower than C will not count toward satisfying graduate degree requirements.

Students should petition for admission to candidacy for the degree by filing a plan of study based upon selected research areas approved by faculty advisors.

Students must pass a comprehensive oral examination administered by the advisory committee.

Program requirements include completion of 32 semester hours. Five hours at a minimum are applied to a research project; 27 hours are taken in epidemiology, biostatistics, environmental health, occupational health, public health organization, and behavioral health.

Required Courses include the following:	Hr.
CMED 491 <i>Advanced Study: Biostatistics</i>	4
CMED 491 <i>Advanced Study: Occupational Epidemiology</i>	4
PUBA 491 <i>Advanced Study: Health Care Administration</i>	3
CMED 491 <i>Advanced Study: Environmental Health</i>	4
SOCA 233 <i>Sociology of Work and Work Places</i>	3
CMED 397 <i>Master's Degree Research or Thesis</i>	5
Recommended elective courses include the following:	Hr.
CCMD 350 <i>Radiation Safety and Isotope Use</i>	1
BE 349 <i>Management Seminar</i>	3
LAW 380 <i>Legal Research</i>	1
IE 260 <i>Human Factors Engineering</i>	3
IE 364 <i>Industrial Ergonomics</i>	3
PCOL 362 <i>Occupational Toxicology</i>	1

School of Nursing

E. Jane Martin, Ph.D., R.N., F.A.A.N., Dean.

Joan E. Watson, Ph.D., R.N., F.A.A.N., Associate Dean for Research and Graduate Education.

Karen E. Miles, Ed.D., R.N., Associate Dean for Undergraduate Education.

Jacqueline W. Riley, M.N., R.N., Assistant Dean for Student Affairs.

Mona M. Counts, Ph.D., R.N., F.N.A.P., Chairperson, Department of Health Promotion/Risk Reduction.

Lynne Ostrow, Ed.D., R.N., Chairperson, Department of Health Restoration.

Janet F. Wang, Ph.D., R.N., F.A.A.N. Chairperson, Department of Health Systems.

Mary Jo Butler, Ed.D., R.N., Director, Charleston Division.

Jacqueline G. Stemple, Ed.D., R.N., Director, Program Evaluation.

Judith Kandzari, Ed.D., R.N., Director, Distance Education.

Degrees Offered:

Bachelor of Science in Nursing

Master of Science in Nursing

The distinctive mission of West Virginia University School of Nursing is to serve as a center for nursing education, research, and practice. The goals of the School, which flow from the missions of the school, the Health Sciences Center, and the university, guide the development of the undergraduate and graduate programs in nursing.

The basic B.S.N. program can be completed in four (4) years in Morgantown or by attending two (2) years in Morgantown and two (2) years in Charleston. Consortium programs with Glenville State College and Potomac State College allow students to complete the first two (2) years at Glenville or Potomac State and the last two (2) years in Charleston or Morgantown.

Class and course requirements are flexible to accommodate the registered nurse who is a full-time worker and a part-time student. Both the baccalaureate completion program for registered nurses and graduate programs are offered in multiple off-campus sites through the West Virginia Satellite Network (SATNET).

Further information about all programs may be obtained by writing Assistant Dean, WVU School of Nursing, 6702 Health Sciences South, PO Box 9600, Morgantown, WV 26506-9600; or Director, Charleston Division, WVU School of Nursing, WVU Health Sciences Center Charleston Division, 3110 MacCorkle Avenue, SE, Charleston, WV 25304-1299, for Glenville, Charleston, Beckley, and Parkersburg programs.

The Philosophy of the School of Nursing

Nursing is an art and a science practiced by professionals in concert with individuals, families and communities for the purpose of promoting health. Nursing is a learned discipline whose perspective is the person-environment health process. The person is inseparable from the environment and interacts dynamically with the environment as a unified whole, thus maintaining integrity. This interaction enables the pursuit of choices and goals. Health is a process through which individuals, families, and communities maximize potential for living a self-determined life.

Health is promoted through the caring presence of the nurse in situations where capabilities are discovered, strengths are maximized, and development is nurtured. The caring presence is a relationship in which the nurse interacts with persons in the creative application of the discipline's art and science. Nurses collaborate with others to maximize resources for the benefit of the person.

The discipline of nursing is taught in an academic setting in which students must be educated to practice in a rapidly changing society. The knowledge base for nursing builds on content from the humanities and the sciences. Learning is a life long process which is enhanced in a climate of personal acceptance of the learner as an integrated being. Faculty and students share the responsibility for creating an atmosphere that fosters the development of intellectual curiosity, systematic inquiry, critical thinking, self direction, caring relationships, and a commitment to continued learning.

Nursing is accountable to society for ensuring that the public interest is protected and served. To promote the relevance of the discipline to societal needs, faculty contribute to the development and evaluation of the discipline by engaging in creative endeavors that reflect a synthesis of teaching, practice, and research.

Undergraduate education in nursing prepares individuals capable of beginning professional nursing practice and provides a foundation for graduate education in nursing. Graduate education in nursing at the masters level prepares persons to engage in advanced nursing practice and provides a foundation for doctoral study in nursing.

Accreditation

The National League for Nursing is the recognized accrediting agency for nursing programs. The baccalaureate program received initial accreditation with graduation of the first class in 1964. The master's program was initially accredited in 1981. Both programs have continued to maintain accreditation.

Undergraduate Program

The baccalaureate program (BSN) accommodates both high school and college students who aspire to a career in nursing and registered nurses (R.N.) who are licensed graduates of associate degree and diploma nursing programs and want to continue their career development.

Basic students may enroll on the Morgantown campus. They may also enroll for the freshmen and sophomore years at Glenville State College or Potomac State College. Students who begin their courses at Glenville or Potomac State College complete their junior and senior years on the Morgantown or Charleston campus. Nursing courses begin in the sophomore year and extend through the senior year.

Registered nurses can complete requirements for a baccalaureate degree in nursing on both the Morgantown and Charleston Health Sciences Center campuses and through extension at Beckley, Parkersburg, and selected other sites. At the extension sites all required non-nursing courses are earned in institutions of higher learning in the respective locations. Credit may be earned by enrollment, College Entrance Examination Board Advanced Placement Program, and advanced standing examination available in the particular institution. Nursing courses are offered at a rate of four to eleven

credit hours a semester and are scheduled to provide opportunity for completion of degree requirements in two to three years.

Undergraduate education in nursing prepares graduates to begin professional nursing practice and provides a foundation for graduate education in nursing. Upon completion of the baccalaureate curriculum, the nurse can practice in a variety of settings and with clients across the life span. The graduate uses process skills to maintain, restore, or improve health states of clients, and applies leadership theory to effect change. The baccalaureate graduate uses a conceptual base to evaluate and modify the nursing role in relation to client needs and expectations and is prepared to support efforts in expanding nursing knowledge.

Fees, Expenses, Housing, Transportation

Registering students pay the fees shown in the *WVU Health Sciences Center Catalog* charts, plus special fees and deposits as required. Fees are subject to change without notice. Students' expenses vary widely according to the course of study and individual tastes. Students are expected to provide their own transportation, equipment and instruments for the clinical courses. Specific immunizations, including hepatitis B, are required.

Information concerning financial assistance and application forms may be obtained by visiting or writing the Financial Aid Office, Health Sciences North, PO Box 9810, Morgantown, WV 26506-9810, telephone (304) 293-3706.

The University Housing and Residence Life Office, G-18 Towers (phone 304/ 293-3621), provides information concerning University-owned housing. The Student Life Office in Moore Hall (telephone (304) 293-5611) provides information concerning privately owned, off-campus housing.

Some clinical experiences require the student to travel in a multi-county area. Students are responsible for providing their own transportation to all clinical experiences.

Admission to Basic Program

Admission to the basic program is highly competitive. Meeting the minimum requirements to apply does NOT guarantee admission. Ninety percent of the space in each entering class is given to West Virginia residents. The opportunity for direct admission as freshmen may be available to selected students with a high school grade point average of 3.6 or higher and an ACT composite score of 26 or better.

Applicants are eligible for review by the Admissions, Progression and Graduation Committee after completion of one full semester of college course work. The academic record is the major factor in the decision on admission. To qualify for **consideration**, a West Virginia resident must have a grade-point average of 2.5 or above, on a scale of 0.0 to 4.0 on all college work attempted. Residents of other states must have an average of 3.2 or above to be **considered**. West Virginia residents whose grade-point average falls between 2.3 and 2.5 and out of state residents with a grade-point average between 3.0 and 3.2 may petition in writing to the Dean for special consideration. Such a petition, clearly stating why the applicant should receive special consideration, must be submitted with the application.

Application to the basic program must be made by February 15 of the year the candidate wishes to be admitted. Application forms are distributed after

December 1 by the Health Sciences Center Office of Admissions and Records. Completed applications and the required application fee, payable to West Virginia University, may be presented in person or mailed directly to: ATTN: Nursing Secretary, WVU Office of Admissions and Records, 1170 Health Sciences Center North, PO BOX 9815, Morgantown, WV 26506-9815. February 15 is the deadline for receipt of all application materials, including transcripts.

Application to the Glenville State College-West Virginia University School of Nursing joint program follows the schedule described above. Application forms are available from the Office of Student Services, Charleston Division of WVU Health Sciences Center, 3110 MacCorkle Avenue S.E., PO BOX 1299, Charleston, WV 25304-1299. Completed applications for the consortium program and the required application fee, payable to West Virginia University, are mailed directly to the Student Affairs Coordinator, Charleston Division, WVU Health Sciences Center, 3110 MacCorkle Avenue, SE, PO BOX 1299, Charleston, WV 25304-1299.

Admission as a Transfer Student

An applicant with nursing credit from an accredited college or university is eligible for consideration for admission by presenting a record of courses comparable to those required in this curriculum and meeting other School of Nursing admission requirements. Acceptance and placement in the program is dependent on the individual's academic record and the number of spaces available in the program. Application should be initiated three months prior to the beginning of the semester in which the applicant wishes to begin nursing courses. Transcripts and other required materials must be received no later than two months before the start of the entering semester. Candidates apply to the Assistant Director of Admissions and Records, 1170 WVU Health Sciences Center North, PO BOX 9815, Morgantown, WV 26506-9815, requesting consideration for advanced placement as a transfer student.

Admission for Registered Nurses

Registered nurses are admitted directly to the School of Nursing. Acceptance and placement in the program are dependent upon the individual's academic record and upon the number of spaces available in the program. An unrestricted license to practice nursing and a grade-point average of 2.5 or better on all college work attempted are required to be eligible for consideration. Candidates with a restricted license will be considered on an individual basis. Applicants whose grade-point average falls below 2.5 may petition to the Admissions Committee for special consideration. Registered Nurses who wish to take only selected satellite courses may apply for non-degree seeking status.

Application forms for the Morgantown Campus and extension sites may be obtained from the Assistant Director of Admissions and Records, 1170 WVU Health Sciences Center North, PO BOX 9815 Morgantown, WV 26506-9815. Application forms for the Charleston Division, Beckley and Parkersburg extension sites may be obtained from the Student Affairs Coordinator, Charleston Division, WVU Health Sciences Center, 3110 MacCorkle Avenue, SE, PO BOX 1299, Charleston, WV 25304-1299.

Academic Standards and Graduation Requirements

To be in good academic standing, students must: (1) maintain a cumulative grade-point average of 2.5 or better in all work attempted and (2) pass all courses with a grade of C or better. A student who receives a grade of D, F, or WU in a required nursing course may repeat that nursing course ONCE. A student may repeat ONLY TWO nursing courses. Students who do not maintain a cumulative GPA of 2.5 or better will be placed on probation for one semester. Students on probation who do not raise their cumulative GPA to 2.5 or better after one semester will be dismissed from the School of Nursing. Nursing courses and pre- and co-requisite courses in which students earn a grade of D, F, or WU must be repeated prior to the student's progression to the next course(s) in the nursing sequence. Students who repeat a nursing course and earn a grade of D, F, or WU will be dismissed from the School of Nursing. Any general education course that is not a pre- or co-requisite of nursing courses and in which a grade of D, F, or WU has been earned must be repeated prior to graduation if it is to be counted toward graduation requirements. The baccalaureate of science in nursing degree is conferred upon completion of 136 credit hours and all required courses.

Curriculum

The usual curriculum progression for the **basic** student is presented in the suggested plan of progression. Certification in school health nursing is available to students who meet additional course and experimental requirements.

For the registered nurse student, a minimum of 30 hours of general education courses that meet the University Liberal Studies Program and School of Nursing requirements should be completed before enrollment in the first nursing courses: Nursing 100 *Basic Concepts in Professional Nursing*; and Nursing 101 *Transitional Practicum*. It is recommended that the 30 hours be selected from the freshman and sophomore general education courses listed in the "Suggested Plan of Progression" under the section on curriculum. Special attention should be given to the physical, biological, and psycho-social sciences. Completion of additional general education courses beyond the 30 hours is recommended prior to beginning nursing courses if the R.N. student wishes to carry a part-time course load. The second semester of chemistry may be waived if the applicant has successfully completed comparable laboratory science courses and meets other science requirements (anatomy, physiology, microbiology, and pharmacology).

All R.N. students are required to enroll in Nursing 100 and Nursing 101. The purpose of these courses is to facilitate transition into professional nursing. Special emphasis is placed on socialization into role and expectations of this role according to the School of Nursing's conceptual framework. **An unrestricted West Virginia R.N. license is required for enrollment in Nursing 101 and subsequent clinical nursing courses.**

Graduates of associate degree programs establish lower-division nursing credit by the transfer of hours. Graduates of diploma programs establish lower division credit in nursing by successful completion of a comprehensive lower-division challenge examination.

Upon successful completion of Nursing 100 and 101, establishment of lower division nursing credit, and completion of the general education course

requirements listed in the suggested plan of progression for the first and second years of the program, the R.N. student is eligible for the Advanced Placement Experience (APE). APE is a conceptual approach to establishing credit for junior nursing courses. Students enroll in specified sections of all Junior level courses and engage in experiences that result in an individualized diagnostic analysis of learning and completion of prescribed learning to meet identified needs. The prescriptive component, usually completed within the semester of enrollment in APE, forms the basis for continued learning in senior courses. Difficulty with APE may require special work or enrollment in additional sophomore or junior courses. Successful completion of APE and of the general education requirements is required to be eligible for matriculation in senior level courses. All senior nursing courses are taken by enrollment. Certification in school health nursing is available to students who meet additional course and experiential requirements.

B.S.N. Suggested Plan of Progression

First Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
CHEM 11	4	CHEM 12	4
PSYC 1	3	ENGL 1	3
SOCA	3	BIOL 2 & 4	4
HN&F 71	3	PSYC 141	3
Cluster A or MATH 3	3	Nursing 10	3
Total	<u>16</u>	Total	<u>17</u>

Second Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
NSG 21	2	NSG 41	2
NSG 23	1	NSG 43	2
NSG 25	4	NSG 45	4
Anat. 101	4	PHYS 141	4
M. Bio. 26	4	Pharm. 160	3
Engl 2	3	Cluster B	3
Total	<u>18</u>	Total	<u>18</u>

NSG 100 (R.N.'s only) 4

NSG 101 (R.N.'s only) 2

Third Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
NSG 131	2	NSG 151	2
NSG 133	2	NSG 153	2
NSG 135	5	NSG 155	5
NSG 136	3	NSG 156	3
Stat. 101	3	Cluster A	3
Total	<u>15</u>	Total	<u>15</u>

Advanced placement experience for junior level nursing courses
available for the R.N.s 24 credit hours

Fourth Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
NSG 221	3	NSG 241	3
NSG 223	2	NSG 243	2
NSG 225	6	NSG 245	6
NSG 276	3	NSG 291	3
Cluster A	3	Cluster A	3
Total	17	Total	17

Graduate Program

The School of Nursing offers a program of study leading to the Master of Science in Nursing (MSN) degree in rural primary health care with preparation in advanced practice nursing, nursing administration, or nursing education. The emphasis of advanced practice is on the vulnerable family population with specialization in children's health, elder health, or women's health. Sub-specialties are potentially available. The program is offered at the University main campus in Morgantown and at selected extension sites.

The graduate program offers a curriculum which allows students to enroll on a part-time or full-time basis. Throughout the curriculum, students are guided in the processes of self-development aimed at pursuing excellence in scholarly and professional endeavors. The program allows flexibility within the basic curricular structure through the individualization of learning experiences, electives, master's paper, thesis, and the opportunity to investigate an area of interest in advanced study.

The pattern and duration of the student's study plan is determined in consultation with a faculty advisor and is based upon the student's background and goals. The program can be completed in four semesters of full-time study at the Morgantown campus. The average full-time load is 9-12 credit hours per semester.

Graduate education in nursing prepares clinicians capable of leadership in developing and expanding nursing knowledge, skills, and practice competencies in light of societal needs. Preparation at the master's level provides the opportunity for the student to demonstrate self-direction and effective interactions with other health professionals in improving nursing practice and the health care delivery system. The master's graduate is able to provide quality health care in a variety of settings while clarifying and redefining nursing roles.

Admission Requirements

These criteria must be met for **regular** admission to graduate study in the School of Nursing. The applicant must:

1. Meet WVU requirements for admission to graduate study.
2. Have a cumulative grade point average of 3.0 or higher on a 4.0 scale on all college work attempted.
3. Have a total GRE score of 1250 or higher within the last five years.
4. Have a current, unrestricted RN license in at least one state.
5. Be a graduate of an NLN accredited BSN program.
6. Have completed three credits of statistics acceptable for transfer with a grade of C or better.

7. Have completed a health assessment course which included physical examination skills with a grade of C or better and acceptable for transfer.
8. Submit three letters of reference.
9. Submit a typewritten statement of professional goals (limited to two typewritten, double-spaced pages).

Applicants who do not meet one or more of the above criteria will be considered for **provisional** admission on an individual basis.

The application process **must be completed by March 1** for summer enrollment, **June 1** for fall enrollment and **October 1** for spring enrollment. Class sizes are limited based on available faculty resources and space.

Applicants for graduate study need to complete the following steps in order to be considered for admission:

1. Complete two application forms as indicated below and return to the appropriate offices to avoid unnecessary delay in the review process.

- a. Application for Admission to Graduate Studies (available from Admissions and Records). To be returned with a \$35.00 non-refundable service fee to: Office of Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009.

- b. Application for Admission to Graduate Study in the School of Nursing Programs (available from Student Affairs Office). To be returned to: WVU School of Nursing Student Affairs Office, PO BOX 9600, Morgantown, WV 26506-9600.

2. Request an official transcript of records from each college or university attended. Transcripts and records should be sent directly to the WVU Office of Admissions and Records, PO BOX 6009, Morgantown, WV 26506-6009.

3. Send the three recommendations directly to WVU School of Nursing Student Affairs Office, PO BOX 9600, Morgantown, WV 26506-9600.

The parameters used for review of applicants include: academic achievement, professional experience, career goals, and recommendations. Once admitted the student is assigned a faculty advisor who guides the student in curricular and academic matters. Enrollment in nursing courses is based on readiness and availability of space.

Degree Requirements.

(Note: The graduate curriculum is being revised, therefore these requirements are subject to change.)

- Completion of 36 semester credit hours, including 27 hours in nursing, three hours in graduate-level statistics, and six hours of non-nursing electives.
- Completion of a master's paper (three hours).
- Achievement of an overall academic average of at least B in all work attempted in the master's program. The grade C in two nursing courses will require a faculty review of the student's program progression.
- Removal of all conditions, deficiencies, and incomplete grades.

Credit hours for courses in which the grade is lower than C will not count toward satisfying graduate degree requirements.

Required courses must be taken for letter grades (A, B, C). Electives may be opted for pass (P) or fail (F) grades, subject to the approval of the adviser.

M.S.N. Curriculum

(Note: The graduate curriculum is being revised. These requirements and course descriptions are subject to change.)

M.S.N. Nursing Theory, Practice, and Research (27 hours)		Hrs.
NSG 370 <i>Theories in Nursing</i>	3	
NSG 373 <i>Research Process and Methods in Nursing</i>	3	
NSG 375 <i>Health Promotion</i>	3	
NSG 376 <i>Health Policy</i>	3	
NSG 378 <i>Health Promotion Practice I</i>	6	
NSG 380 <i>Health Promotion Practice II</i>	6	
NSG 397 <i>Research</i> (master's paper)	3	
Subtotal	27	
Cognates (one of which must be statistics)	9	
Total	36	

Full Time Plan of Study

First Year

Fall Semester	Hrs.	Spring Semester	Hrs.
NSG 370 <i>Theories in Nsg</i>	3	NSG 373 <i>Research</i>	3
Stat 311	3	NSG 375 <i>Health Promotion</i> ..	3
Cognate	3	Cognate	3
	9		9

Second Year

Fall Semester			
NSG 376 <i>Health Policy</i>	3	NSG 380 <i>Health Promotion</i>	
NSG 378 <i>Health Promotion</i>		Practice 2	6
Practice 1	6	NSG 397 <i>Research</i>	3
	9		9

School of Pharmacy

George R. Spratto, Ph.D., Dean

Carl J. Malanga, Ph.D., Associate Dean for Academic Affairs/Administration

Calvin C. Brister, Ph.D., Assistant Dean for Student Affairs

Joseph K. H. Ma, Ph.D., Interim Assistant Dean for Research and Graduate Programs

Degrees Offered:

B.S. in Pharmacy

Pharm. D. (post-baccalaureate)

M.S., Ph.D. in Pharmaceutical Sciences

Introduction

Pharmacy was first offered at West Virginia University as a department in the School of Medicine, beginning in 1914. It became the College of Pharmacy in 1936 and the School of Pharmacy in 1958. In 1960, the School of Pharmacy changed from a four-year to a five-year program. The current pharmacy curriculum comprises three years of professional study preceded by a minimum of two years of study in an accredited college of arts and sciences.

A primary objective of the School of Pharmacy is to educate practitioners for current and future roles in the profession of pharmacy. To meet this objective, the curriculum provides the student with the scientific and technical knowledge and communication skills required to practice the profession and inculcates in the student a concept of the pharmacist's professional responsibilities as a provider of pharmaceutical care and as a guardian of the public health.

Most pharmacy graduates enter practice in community or institutional pharmacies; however, positions are also available in various government agencies and professional organizations. In addition, the pharmaceutical industry provides various opportunities in promotion, distribution, production, and research. Pharmacists are eligible for commissions in the armed forces and for positions with the U.S. Public Health Service. Pharmacists also may prepare for careers in teaching and research through graduate study.

WVU School of Pharmacy offers M.S. and Ph.D. programs in the pharmaceutical sciences. Students may specialize in pharmacy, pharmaceuticals, medicinal chemistry, pharmaceutical chemistry, biopharmaceutics/pharmacokinetics, pharmacology and behavioral and administrative pharmacy. A two-year post-baccalaureate Pharm. D. program was initiated in 1993.

Accreditation

The School of Pharmacy is accredited by the American Council on Pharmaceutical Education. The council is composed of members from the American Pharmaceutical Association, National Association of Boards of Pharmacy, American Association of Colleges of Pharmacy, and American Council on Education.

The School of Pharmacy holds membership in the American Association of Colleges of Pharmacy, whose objective is to promote the interests of pharmaceutical education. All of the AACP member institutions must maintain certain requirements for entrance and graduation.

Legal Requirements and Reciprocity

To qualify for examination for licensure by the West Virginia Board of Pharmacy, the applicant must be not less than 18 years of age and of good moral character. Further, the applicant must be a graduate of an accredited school of pharmacy, and must meet the internship requirements set by the West Virginia Board of Pharmacy.

Interns must be registered with the West Virginia Board of Pharmacy and must be enrolled in or a graduate of an accredited school of pharmacy to gain experience acceptable for the internship requirement. Details may be obtained from the Office of the Dean.

School of Pharmacy graduates are eligible for examination to practice pharmacy in any state. Graduates who successfully pass the West Virginia Board of Pharmacy examination are privileged to reciprocate with forty-eight other states, and with the District of Columbia and Puerto Rico, provided they meet the requirements of these states.

Admission

All students seeking enrollment in the School of Pharmacy must comply with regulations appearing in this catalog and the *WVU Undergraduate Catalog*. Students preparing for the study of pharmacy may satisfy the course work requirements for entrance into the School of Pharmacy by successfully completing the following course selections, or their equivalents:

Pre-Pharmacy Requirements	Sem. Hr. Credit	WVU Courses Meeting Requirements
English Composition	6	ENGL 1 & 2
Introduction to Calculus	3	MATH 128
Principles of Microeconomics	3	ECON 54
General Biology	8	BIOL 1,3 & 2,4 or BIOL15 & 17
General Chemistry	8	CHEM 15 & 16
Organic Chemistry	8	CHEM 133/135 & 134/136
Physics	8	PHYS 1 & 2
Introduction to Statistics	3	STAT 101 or ECON 125
Electives**	21	
Total	68	

**Electives must be designed to satisfy the University Liberal Studies Program requirements. (See "Liberal Studies Program" for a listing of specific courses.) Cluster A—12 hr.; Cluster B—nine hr. in addition to Economics 54; and a three-hour course focussing on foreign or minority culture, women, or issues of gender. The WVU requirement for a writing course can be taken during the pre-pharmacy period of study; if not, it will be necessary to take such a course within the professional curriculum.

Because limited openings are available in both the undergraduate and post-baccalaureate Pharm. D. programs, preference in admissions is given to qualified West Virginians, although outstanding nonresident applicants are considered. Careful consideration is given to those personal qualifications which bear upon the fitness of applicants for the study and practice of the profession of pharmacy.

Admissions are competitive and are based on cumulative and science academic grade-point averages achieved in all prior college courses, recommendations describing academic performance, results of the Pharmacy College Admissions Test (PCAT), and a personal interview which may be

required. A required course in which a grade of D was received must be repeated with a grade of C or better before acceptance can be granted by the School of Pharmacy Committee on Admissions.

Applicants should write to the Office of Admissions and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815 for official application forms, which will be made available after January 1 of each year and which should be returned to that office by April 1 preceding the fall term (first semester) in which the student seeks enrollment. Formal applications received after the April 1 deadline will be considered only when vacancies exist. A \$10.00 application fee is required and must accompany the application.

Each applicant who is recommended for acceptance is expected to deposit \$75.00 before his/her name is entered upon the official list of those accepted by the School of Pharmacy. If the applicant enrolls, this sum is applied to the first-semester tuition. If the applicant fails to enroll, this deposit is forfeited.

With enrollment in the School of Pharmacy, all students must complete the immunizations and diagnostic procedures required by the University of West Virginia Board of Trustees, West Virginia University, the Robert C. Byrd West Virginia University Health Sciences Center, and/or the School of Pharmacy.

Complete information may be obtained from the Dean of the School of Pharmacy, WVU Health Sciences Center, P.O. Box 9500, Morgantown, WV 26506-9500 or from the Office of Admissions and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815.

Pharmacy College Admission Test

Completion of the Pharmacy College Admission Test is a requirement for admission. It is recommended that the student take this test in the fall before making application for admission. Information concerning time and place of the test can be obtained from a pre-pharmacy adviser, the School of Pharmacy, or by writing: Pharmacy College Admission Test, The Psychological Corporation, 555 Academic Court, San Antonio, TX 78204.

Personal Interview

The Committee on Admissions may require a personal interview with an applicant as it deems appropriate. Interviews are held during February, March, and April at the WVU Robert C. Byrd Health Sciences Center and the Charleston Area Medical Center and are arranged, insofar as possible, to suit the convenience of the applicant. The general policy is that only applicants with a cumulative and science grade-point average of 2.5 or above are called for an interview. Applicants with a cumulative or science grade-point average below 2.5 are generally not considered minimally qualified for admission.

Recommendations on Academic Performance

Three faculty recommendations are required, although more may be submitted. At least two of these recommendations must be provided by course instructors in any two of the three pre-pharmacy science areas: biology, chemistry, and physics. The third recommendation may be provided by a course instructor of the student's choice.

***Admission to Advanced Standing**

If space is available, students from other accredited schools of pharmacy may be admitted, provided they meet the course requirements of the WVU School of Pharmacy, have at least a 2.5 grade-point average, and are eligible for continuation toward a degree in pharmacy in the school initially attended. D grades in professional courses can not be transferred.

Student Status and Advancement

A student's status is determined by the Committee on Academic Standards of the School of Pharmacy. All committee actions are subject to approval of the Dean. In the School of Pharmacy, all grades except W, WU, P, and X are used to determine the cumulative grade-point average. The advancement of students in the School of Pharmacy is based on satisfactory academic performance, as well as the completion of course requirements.

To be in good standing, a student must maintain at least a 2.0 cumulative average while in the professional program. An F grade or failure to attain a 2.0 average in any semester will result in placing a student on probation. To be removed from probation, a student shall: (a) remove all academic deficiencies; (b) attain not less than a 2.0 cumulative grade-point average; and (c) demonstrate significant improvement in academic performance, earning a C grade or better in all course work prescribed by the Committee on Academic Standards. Failure to be removed from probation in the subsequent semester may be deemed sufficient reason for suspension or the withdrawing of advancement. Furthermore, any student on probation at the end of the second professional year must petition the Committee on Academic Standards for advancement to the third professional year and shall not be eligible for summer clerkships. Any first-professional-year student deficient seven or more grade points at the end of the academic year, or any second professional year student deficient four or more grade points, shall fail promotion and shall repeat the year. Any student deficient 12 or more grade points, or who fails promotion a second time, shall be suspended or dismissed from the School of Pharmacy. An exceptionally poor performance during any semester may result in failure to be advanced or suspension.

Students on probation are not eligible to hold office in student organizations or to participate in activities which make demands on time necessary to maintain satisfactory academic performance. Students on probation are expected to be present for all of their classes and laboratories. Full-time students in the School of Pharmacy may not register for less than 12 hours nor more than 20 hours during any semester without the approval of the Committee on Academic Standards.

Special Requirements

Fifteen hundred clock hours of internship experience are required by the Board of Pharmacy for licensure in West Virginia. Students are required to obtain an Intern Certificate from the West Virginia Board of Pharmacy. Any hours worked before becoming a registered intern will not apply toward meeting the Board requirements. Students must have a valid Intern Certificate throughout their externship semester. The certificate must also be maintained until completion of the entire internship. The Board of Pharmacy holds final

authority over internship rules and regulations. Six hundred and forty hours of the total of fifteen hundred required by the Board of Pharmacy are obtained upon completion of the externship semester of the third professional year.

During the first professional year, students will be informed of their assigned semester for the third-professional-year's required externship/clerkship program. Location and time of the rotations will be assigned during the second semester of the second year. Opportunity will be provided to state individual preference before assignments are made; however, the School of Pharmacy reserves ultimate responsibility in making such assignments. Each student will be expected to bear some of the financial burdens (i.e., living, moving, travel, etc.) incurred in satisfying externship/clerkship assignments. The externship semester is divided into four four-week blocks. Three of the four blocks must be performed in school-approved rural practice sites. The class will be divided into groups such that 20 percent of the class will be assigned to the summer semester, and 40 percent each to the fall and 40 percent to the spring semesters.

Requirements for Degree

The degree of bachelor of science in pharmacy (B.S.Pharm.) is conferred upon any student who complies with the general regulations of WVU concerning degrees, satisfies all entrance and School of Pharmacy requirements, and completes the curriculum of the School of Pharmacy.

To be eligible for graduation, a student must have an average of C (2.0) for all work in the professional curriculum.

Course Changes

A student who seeks credit for a course previously taken to replace a course prescribed in the student's curriculum must petition the Committee on Academic Standards.

SCHOOL OF PHARMACY CURRICULUM PLAN

First Professional Year

First Semester	Hr.
BIOC 139 <i>General Biochemistry</i>	3
ANAT 101 <i>Human Anatomy</i>	3
PSIO 241 <i>Mechanical Body Functions</i>	4
PHAR 200 <i>Introduction to Pharmaceutical Systems</i>	4
PHAR 201 <i>Concepts in Pharmaceutics 1</i>	3
PHAR 227 <i>Pharmacist's Social Environment</i>	2
	<u>19</u>

Second Semester	Hr.
MBIO 220 <i>Microbiology</i>	4
PHAR 202 <i>Concepts in Pharmaceutics 2</i>	4
PHAR 229 <i>Managerial Aspects of Pharmacy Practice</i>	3
PHAR 241 <i>Fundamentals of Pathophysiology</i>	4
PHAR 270 <i>Fundamentals of Medical Chemistry 1</i>	3
	<u>18</u>

Second Professional Year

First Semester

Hr.

PCOL 243 <i>Pharmacology</i>	4
PHAR 203 <i>Concepts in Pharmaceutics 3</i>	4
PHAR 230 <i>Professional Aspects of Pharmacy Practice</i>	3
PHAR 245 <i>Pharmacotherapy 1</i>	3
PHAR 271 <i>Fundamentals of Medical Chemistry 2</i>	3
PHAR 265 <i>Chemical Abuse</i>	1
	<u>18</u>

Second Semester

Hr.

PHAR 205 <i>Pharmaceutical Aspects of Pharmacy Practice</i>	4
PHAR 228 <i>Pharmacy Practice and Legal Environment</i>	3
PHAR 246 <i>Pharmacotherapy 2</i>	3
PHAR 255 <i>Introduction to Drug Literature</i>	2
PHAR 266 <i>Principles of Clinical Pharmacy Practice</i>	2
PHAR 212 <i>Non-Prescription Drugs</i>	3
	<u>17</u>

Third Professional Year

First Session (Summer)

Hr.

PHAR 250 <i>Ambulatory Care Clerkship</i>	4
PHAR 251 <i>Medical Team Clerkship</i>	4
PHAR 252 <i>Institutional Care Clerkship</i>	4
PHAR 253 <i>Elective Clerkship</i>	4
	<u>16</u>

Second Session (First Sem.)

Hr.

PHAR 250, 251, 252, and 253 (See First Session) or Electives or Free Session	16
	<u>16</u>

Third Session (Second Semester)

Hr.

PHAR 250, 251, 252, and 253 Electives or Free Session	12
	<u>12</u>

Prior to graduation and usually following completion of the first professional year, each student enrolled in the School of Pharmacy must complete a minimum of 12 credit hours of electives as part of the pharmacy curriculum. The WVU requirement for a writing course can be taken during the pre-pharmacy period of study; if not, it will be necessary to take such a course within the professional curriculum.

Of the 12 credit hours, a minimum of 6 credit hours must be electives offered in the School of Pharmacy. The remaining credit hours may be approved electives offered in other colleges and departments at WVU and include all Honors courses offered at WVU. Elective course lists are posted in the School of Pharmacy and are available from the student's adviser. Under special circumstances (e.g., new courses, preparation for special post-baccalaureate programs, etc.) and only with the adviser's permission, the student may take a course which does not appear on either list of approved electives.

Beyond the required 12 credit hours, the student may take any other electives. No course taken prior to admission into the School of Pharmacy may be used nor repeated to meet the elective requirements of the professional curriculum.

A student admitted into the School of Pharmacy with a previously earned baccalaureate degree may petition the Committee on Academic Standards to be relieved of a maximum of six credit hours of the approved non-pharmacy elective requirement. This petition is normally granted if the student is in good academic standing. The student petitions for this exemption during the preregistration period in the spring semester of the first year in pharmacy school with the exemption contingent upon the successful completion of both semesters of the first-year pharmacy curriculum. Once the exemption is granted, it shall not be revoked except for just cause as deemed necessary by the Dean and/or faculty.

The University pass/fail policy will be followed. Only Pharmacy 289 (first offering up to three hours), approved electives in other colleges and departments at WVU, or additional free electives may be taken on a pass/fail basis. No more than three credit hours of PHAR 289 (*Pharmaceutical Investigations*) will be permitted to count toward fulfillment of the pharmacy elective requirements. A student with at least a 2.0 grade-point average may elect to take up to a maximum of four credit hours each semester on a pass/fail grading basis.

Post-Baccalaureate Doctor of Pharmacy

The two-year Pharm. D. program includes a didactic component designed to improve the student's basic skills and knowledge base. The first year consists of courses in pathophysiology, therapeutics, drug literature review and evaluation, pharmacokinetics, and physical assessment. The second year of the program is experiential and emphasizes the application of the knowledge gained during the previous year. Students will train at clinical clerkship sites in both Morgantown and Charleston, each being unique from the others. Each setting will enable students to enhance and refine their therapeutic skills, develop problem solving techniques, and learn to communicate and contribute as a member of a multidisciplinary health care team. Students are also required to undertake a research project. For more specific information, please write Charles Ponte, Director, Doctor of Pharmacy Program, School of Pharmacy, WVU Health Sciences Center, P.O. Box 9520, Morgantown, WV 26506-9520.

Graduate Programs Pharmaceutical Sciences

The School of Pharmacy offers graduate programs in the pharmaceutical sciences aimed at educating competent researchers and teachers. Programs for the degree of master of science (M.S.) and doctor of philosophy (Ph.D.) provide flexible, research-oriented curricula designed to develop the interests, capabilities, and potential of the individual student.

Admission Requirements

Applicants for admission into the graduate program must satisfy the WVU general requirements for admission as graduate students. The applicant must possess a baccalaureate degree with a background in a suitable area of study,

an overall grade-point average of at least 2.75, and the aptitude and interest for graduate work in the pharmaceutical sciences in order to be admitted with regular student status. Applicants not meeting criteria for admission with regular student status will be considered for admission under alternate admission classifications as explained in Part 2 of the *WVU Graduate Catalog*. In addition, Graduate Record Examination (GRE) scores in the verbal, quantitative, and analytical portions are required from all students except for applicants in the area of behavioral and administrative pharmacy, where test scores on the Graduate Management Admissions Test (GMAT) are acceptable. TOEFL, or similar scores, are required of international students.

Academic Standards

No credits are acceptable toward a graduate degree with a grade lower than a C. A graduate student must have a cumulative grade-point average of at least 3.0 for all graduate courses to qualify for the degrees.

Doctor of Philosophy (Ph.D.)

The School of Pharmacy offers programs of study leading to the doctor of philosophy (Ph.D.) degree in the pharmaceutical sciences. Specialty areas of study include medicinal chemistry, pharmaceutical chemistry, pharmaceuticals, biopharmaceuticals/pharmacokinetics, and behavioral and administrative pharmacy.

Requirements for Ph.D. Degree

The student's first semester is usually occupied with course work while he or she is under the guidance of an interim faculty advisor or committee. During this time, each student will confer with faculty members in the department concerning the research project, and a major professor should be chosen by the end of the first semester of graduate study. The student's research committee should be chosen by the end of the first year of study (18-20 hours of graduate course work). The interest to pursue the M.S. en route to the Ph.D. degree should also be stated at this time. It is not necessary for all students to complete all requirements for the M.S. degree in order to qualify for admission into the Ph.D. program, although the student, with committee advice, may elect to complete the requirements for this degree in progress toward the Ph.D. Students bypassing the M.S. must meet all requirements for the M.S., except for preparing and defending a thesis.

Each student must submit a formal plan of study and research plan to the Health Sciences Center Graduate Council.

Progress will continue with guidance from the research committee, and by the end of the second year the student should have completed the language/research tool requirements.

To be admitted to candidacy for the Ph.D. degree, the student must satisfy the above requirements and pass oral and written qualifying examinations.

After admission to candidacy, a substantial part of the program is devoted to an original research project which culminates in a dissertation. To be recommended for the Ph.D., the dissertation must be satisfactorily completed and defended at an oral examination.

Master of Science (M.S.)

The same program requirements for the first year of graduate study are required of the M.S. degree student as those described for the Ph.D. student. The School of Pharmacy offers programs of graduate study leading to the degree of master of science (M.S.) in the pharmaceutical sciences. Students may specialize in pharmacy administration, pharmacology and toxicology, pharmaceutical chemistry, industrial pharmacy, medicinal chemistry, pharmaceuticals, biopharmaceuticals, and pharmacokinetics.

Requirements for M.S. Degree

To be eligible for the M.S. degree, the student must complete a minimum of 30 hours of graduate credit, of which no more than 6 hours may be for research and thesis. Upon completion of the course work and research requirements and after submission of the thesis, an oral examination will be administered by the appointed examination committee.

Courses

Plan for Numbering Courses

For convenience, each course of study is designated by the name of the department in which it is given and by the number of that course. The plan for numbering courses is as follows:

Courses 1-99: Courses intended primarily for freshman and sophomores.

Courses 100-199: Courses intended primarily for juniors and seniors.

Courses 200-299: Courses for advanced undergraduate students and selected graduate students. No more than 40 per cent of the credits counted for meeting requirements for a graduate degree can be at the 200 level.

Courses 300-399: Courses for graduate students, students in professional programs leading to a doctorate, and selected advanced undergraduates. Undergraduates in any class carrying a 300-level course number must have a 3.0 cumulative grade point average and written approval on special forms from the instructor and the adviser. Seniors within 12 semester hours of graduation may, with prior approval of their advisers, enroll in 300-level graduate courses for graduate credit.

In summary, 200-level courses are intended primarily to serve undergraduate students; 300-level courses are intended primarily to serve introductory graduate degrees' course needs.

Courses 391 *Advanced Topics* and 397 *Master's Degree Research or Thesis*: Courses are approved for University-wide use by any academic unit. These courses may be graded S or U.

Courses 400-499: Courses for graduate students only. All doctoral degree dissertation hours are awarded at the 400-level, specifically under course number 497. Courses numbered 497 may be graded S or U.

Courses 492-495: Courses are approved by the assistant vice president for curriculum and instruction. Approved requests are forwarded to the Office of Admissions and Records for entry into the WVU *Schedule of Courses*. Graduate degree credit-hour requirements must include at least 60 per cent at the 300 and 400 level.

Abbreviations Used in Course Listings

I: a course given in the first (fall) semester.

II: a course given in the second (spring) semester.

I, II: a course given each semester.

I and II: a course given throughout the year.

Yr: a course continued through two semesters.

S: a course given in the summer.

hr: credit hours per course.

lec: lecture period.

rec: recitation period.

lab: laboratory period.

Conc: concurrent registration required.

PR: prerequisite.

Coreq: corequisite.

consent: consent of instructor required.

CR: credit but no grade.

An asterisk (*) following credit hours listed as variable indicates that the course normally carries three credit hours. Exceptions are made only in emergencies

and must be approved by the departmental chair and by the professor teaching the course.

Undergraduate Common Course Numbers and Descriptions

190. *Teaching Practicum*. I, II, S. 1-3 hr. PR: Consent. Teaching practice as a tutor or assistant.

191. *Special Topics*. I, II, S. 1-3 hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

194. *Professional Field Experience*. I, II, S. 1-18 hr. PR: Consent. Prearranged experimental learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors; involves temporary placement with public or private enterprises for professional competence development. (May be repeated up to a maximum of 18 hours.)

195. *Seminar*. I, II, S. 1-3 hr. PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

196. *Senior Thesis*. I, II, S. 1-3 hr. PR: Consent.

197. *Honors*. I, II, S. 1-3 hr. PR: Student in the Honors Program and consent by the Honors director. Independent reading, study, or research.

Graduate Level Common Course Numbers and Descriptions (as approved by the Faculty Senate)

Course 391 *Advanced Topics*. Variable 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

Course 397 *Master's Degree Research or Thesis*. Variable 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

Any school, college, department, or division may elect to offer these courses for its students. With the approval of the assistant vice president for curriculum and instruction, these courses may be graded S or U.

Courses 491 and 497: Courses 491 *Advanced Study* and 497 *Research* are approved for University-wide use by any academic unit. Courses numbered 491 and 497 may be graded S or U.

Courses 492-495: Courses are approved by the assistant vice president for curriculum and instruction. Approved requests are forwarded to the Office of Admissions and Records for entry into the WVU *Schedule of Courses*.

490. *Teaching Practicum*. I and II. 1-3 hr. PR: Consent. Supervised practice in college teaching of _____ (Subject matter determined by department/division/college/school offering the course.)

Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It also provides a mechanism for students not on assistantships to gain teaching experience. Courses numbered 490 are graded S/U.

491. *Advanced Study*. I, II, S. 1-6 hr. PR: Consent. Investigation in advanced topics which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

Note: This course is intended to be helpful in pioneering new courses prior to requesting formal approval through the Senate Curriculum Committee and the full Faculty Senate (no later than the semester following the second offering of a particular special topics course) and to allow distinguished visitors whose stay will be a month or longer to instruct in their own fields of specialty.

492. *Directed Study*. I, II, S. 1-6 hr. Directed study, reading, and/or research.

493. *Special Topics*. I, II, S. 1-6 hr. A study of contemporary topics selected from recent developments in the field.

494. *Special Seminars*. I, II, S. 1-6 hr. Special seminars arranged for advanced graduate students.

495. *Independent Study*. I, II, S. 1-6 hr. Faculty-supervised study of topics not available through regular course offerings.

496. *Graduate Seminar*. 1 hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program.

Note: This course is intended to provide a mechanism for graduate students to give their "maiden speech" in their chosen discipline. Grading will be S/U.

497. *Research*. 1-15 hr.

498. *Thesis*. 2-4 hr. PR: Consent.

Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of students' reports, theses, or dissertation.

499. *Colloquium*. 1-6 hr. PR: Consent. For graduate students not seeking course work credit but who wish to meet residence requirements, use the University's facilities, and participate in its academic and cultural programs.

Note: Graduate students who are not actively involved in course work or research are entitled, through enrollment in his/her department's 499 Graduate Colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. Grading is S/U; colloquium credit may not be counted against credit requirements for masters' programs.

General Comment

Graduate Council policy requires that any student in a master's program has a minimum of 24 hours of "regular" course work: **"...a minimum of 24 hours of course work other than thesis credit is standard and a minimum of 30 total hours is also standard."**

Course Descriptions

School of Dentistry

Professional, Graduate, and Undergraduate Courses

Each course is designated by the name of the department teaching it, its number and title, the semester in which it is offered, and hours of credit. Generally, those courses given in the first year are numbered 300—324; second year, 325—349; third year, 350—374; and fourth year, 375—399. Elective opportunities are offered to students during the fourth year of study. (See courses 394 and 397.) Other University courses may be taken with the approval of the student's adviser and the Associate Dean for Academic Affairs. Courses offered by the School of Dentistry have either a prefix DENT for dentistry, ENDO for endodontics, ORTHO for orthodontics, or DTHY for dental hygiene. Courses included in the curriculum but offered by other colleges, schools, or departments may be located elsewhere in this catalog or in the WVU Graduate Catalog.

Dental Hygiene (DTHY)

1. *Orientation to Dental Hygiene*. I. 2 hr. PR: Enrollment in dental hygiene. Historical development of dental hygiene with emphasis on the philosophy, responsibilities, and current role of the dental hygienist as a member of the dental health team.

66. *Technical Expression and Dental Literature*. I. 1 hr. PR: Enrollment in dental hygiene. Preparation and uses of professional communication.

85. *Oral Anatomy*. II. 3 hr. PR: Enrollment in dental hygiene. Human teeth and the anatomy of the head and neck with emphasis on structures in or related to the oral cavity.

85. *Oral Histology*. II. 3 hr. PR: Enrollment in dental hygiene. Histological structures of the teeth and tissues of the oral cavity and the morphological development of these structures.

90. *Oral Histology*. II. 3 hr. PR: Consent of instructor or chairperson. Histological structure and embryological development of the teeth, tissues, and organs of the oral cavity.

105. *The Theory and Practice of Prevention*. I. 2 hr. PR: Enrollment in dental hygiene. Philosophy and techniques of preventive dentistry.

120. *Dental Nursing Technics*. II. 1 hr. PR: Enrollment in dental hygiene. Emergency first aid and principles of nursing applicable to the dental office

125. *Dental Hygiene Technics*. II. 4 hr. PR: Enrollment in dental hygiene. Fundamental principles and technics of dental hygiene are presented through lectures, laboratory, and clinical participation.

150. *Dental Health Education*. II. 3 hr. PR: Enrollment in dental hygiene. Lectures, demonstrations, and field experiences on the methods, materials, and resources used in teaching dental health to various population groups.

152. *Dental Radiology*. I. 2 hr. PR: Enrollment in dental hygiene. Basic principles and procedures in oral radiology technics and interpretation.

160. *Dental Materials*. I. 3 hr. PR: Enrollment in dental hygiene. Lecture and laboratory covering the science and manipulation of dental materials. (2 hr. lec., 4 hr. lab.)

161. *Expanded Functions*. II. 2 hr. PR: DTHY 160. Lecture and laboratory covering specialty topics in dentistry for expanded functions, four handed dental assisting, and

the placing and carving of amalgam and resin restorations in dentiform teeth. (1 hr. lec., 4 hr. lab.)

162. *Dental Hygiene Clinical Methods*. I. 2 hr. PR: DTHY 125. Principles of oral prophylaxis, instruction in the care of special patients, use of diagnostic aids, and nutritional counseling. (2 hr. lec.)

163. *Clinical Dental Hygiene* 1. I. 2 hr. PR: DTHY 125. Clinical application of dental hygiene principles and techniques. (2 hr. lab.)

164. *Clinical Dental Hygiene* 2. II. 2 hr. PR: DTHY 162, 163. Clinical application of dental hygiene principles and techniques. (8 hr. lab.)

168. *Periodontics*. I. 1 hr. PR: Enrollment in dental hygiene. Tissues of the periodontium, histopathology of periodontal disease with emphasis on etiology, examinations, diagnosis, treatment, and prevention within the scope of dental hygiene.

169. *Periodontics*. II. 2 hr. PR: DTHY 168. A sequential course to DTHY 168.

172. *Public Health*. I. 2 hr. PR: Enrollment in dental hygiene. Theory and practice of preventive dentistry and community health.

174. *Dental Hygiene Teaching Methods*. II. 2 hr. PR: Enrollment in dental hygiene. Concepts and principles of administration, curriculum, and clinical teaching unique to dental auxiliary education. Emphasis on overall role of the dental hygiene educator.

202. *Dental Hygiene Practice*. I. 2 hr. PR: Senior enrollment in dental hygiene. Scope of practice for the dental hygienist including ethical and legal considerations. Public and professional relations as well as practice management are discussed.

204. *Advanced Dental Hygiene Methods*. I. 1 hr. PR: Senior enrollment in dental hygiene. Principles of advanced clinical dental hygiene and practice in non-traditional settings. (1 hr. lec.)

205. *Advanced Clinical Dental Hygiene* 1. I. 5 hr. PR: Senior enrollment in dental hygiene. Clinical experience in traditional and expanded duties; pre- and post-operative care of surgical patients, and radiology. (20 hr. clinic.)

206. *Advanced Clinical Dental Hygiene* 2. II. 3-4 hr. PR: Senior enrollment in dental hygiene. Continuation of clinical practice experience in dental hygiene procedures. (12-16 hr. clinic.)

207. *Advanced Dental Hygiene Methods*. II. 1 Hr. PR: Senior enrollment in dental hygiene. Principles of advanced clinical dental hygiene and practice in non-traditional settings.

220. *Special Topics in Dental Hygiene*. I, II. 1-2 hr. PR: Senior enrollment in dental hygiene. Special topics relevant to dental hygiene. A variety of sections offer elective opportunities to dental hygiene majors.

380. *Dental Hygiene Seminar and Practice* 1. I. 3 hr. PR: Graduate standing and consent. Examination of the critical environmental issues affecting the future of health care; particular impact on oral health care trends will form major focus. Dental hygiene clinical practice is also included.

381. *Dental Hygiene Seminar and Practice 2*. II. 3 hr. PR: DTHY 380. Expanded services for the dental hygienist with emphasis on restorative and periodontal functions.

385. *Research Methods for the Dental Hygienist*. II. 3 hr. PR: ED P 311. Methods and techniques of research in dental hygiene. Major emphasis on planning and evaluating health programs, conducting oral health surveys, designing experiments and critically analyzing research results.

391. *Advanced Topics*. 1, 11, S. 1-6 hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

397. *Research*. I, II, S. 3-6 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

Dentistry (DENT)

Each course is designated by the name of the department teaching it, its number and title, the semester in which it is offered, and hours of credit. Generally, those courses given in the first year are numbered 300—324; second year, 325—349; third year, 350—374; and fourth year, 375—399. Elective opportunities are offered to students during the fourth year of study. (See course 391.) Other University courses may be taken with the approval of the student's adviser and the Associate Dean for Academic Affairs. Courses offered by the School of Dentistry have either a prefix DENT for dentistry, ENDO for endodontics, ORTHO for orthodontics, or DTHY for dental hygiene. Courses included in the curricula but offered by other colleges, schools, or departments may be located elsewhere in this catalog or in the WVU Graduate or Undergraduate Catalogs.

300. *Anesthesiology*. II and S. 1 hr. Lectures on local anesthesia, including types, modes of action, indications, and contraindications for use. Premedication, toxic effects, and technics of administration are discussed.

303. *Oral Diagnostic & Roentgenology*. II. 2 hr. Lectures and laboratory exercises introduce and stress fundamental principles of oral diagnosis including patient health history and clinical examination methods. Intraoral radiography. General approach to treatment planning for comprehensive health care.

304. *Operative Dentistry*. II. 4 hr. Preclinical course in principles of cavity preparation, manipulation of plastic restorative materials, and related instrumentation. Characteristics and treatment of caries emphasized.

310. *Dental Anatomy and Occlusion*. Yr. 6 hr. Anatomy of individual teeth, both permanent and primary, in regard to form and function and their static and dynamic occlusal relationships.

311. *Periodontics*. S. 1 hr. Introduction to periodontal diseases, their diagnosis and treatment. Laboratory instruction is included.

312. *Dental Materials*. I. 3 hr. Composition, physical, chemical, mechanical, and manipulative properties, and technical uses of dental restorative materials as related to dentistry.

313. *Removable Prosthodontics*. I. 3 hr. Lectures and laboratory practice in biomechanical requirements of the edentulous patient.

314. *Fixed Prosthodontics*. S. 1 hr. Preclinical lectures and laboratory exercises in which first-year students are introduced to the technics of preparing and restoring teeth with crown restorations.

315. *Periodontics*. II. 2 hr. Study of professional communication and introduction to the theory and practice of preventive dentistry.

316. *Removable Prosthodontics*. S. 1 hr. Lectures and laboratory practice in maxillomandibular relationships and occlusion.

317. *Removable Prosthodontics*. II. 1 hr. PR: Consent. A lecture course providing an introduction to removable partial denture prosthetics.

319. *Pedodontics*. II. 1 hr. PR: Consent. Normal growth and development presented from physical, intellectual, psychological, and oral perspectives. Behavior of children in dental environment reviewed and strategies for management examined.

320. *Community Dentistry*. I. 1 hr. Fundamentals of statistical analysis and the scientific method necessary to the understanding of dental research.

321. *Endodontics*. S. 2 hr. Preclinical lectures and laboratory exercises on basic technical and biological requisites in the treatment of diseases of the dental pulp and the periapical tissues.

322. *Operative Dentistry*. S. 2 hr. Preclinical course to include a variety of cavity forms and their restoration with compacted golds. Certain fundamentals of pedodontics introduced.

323. *Clinic Orientation*. S. 1 hr. Series of specially arranged lectures, demonstrations, and clinical exercises to orient student to clinical procedures in the clinical disciplines.

325. *Practice Management*. II. 1 hr. A lecture course designed to prepare dental students in the concepts of four-handed dentistry.

327. *Oral Radiology*. I. 1 hr. The physical and biological phenomena associated with x-radiation. Intraoral and extraoral techniques presented and instruction in interpretation of roentgenograms, with special emphasis relative to oral diagnosis.

329. *Operative Dentistry*. I. 2 hr. Lectures relate to standard clinical procedures and to laboratory instruction in direct and indirect cast gold restorations.

330. *Community Dentistry*. II. 1 hr. Lectures provide the student with a basic knowledge of the principles of dental public health practice. Emphasis on dental epidemiology and preventive dentistry at the community level.

331. *Occlusion*. S. 2 hr. PR: Consent. Didactic and clinic/laboratory instruction in the basic techniques and procedures associated with the treatment of conditions related to faulty occlusion.

332. *Periodontics*. II. 1 hr. Lectures in the advanced theory and practice of preventive dentistry with emphasis on nutrition.

333. *Physical Diagnosis*. II. 1 hr. Lectures and demonstrations procedures involved in performing a physical examination and in understanding the hospital medical chart from the standpoint of history, physical examination, laboratory, and x-ray examination data.

334. *Removable Prosthodontics*. Yr. 3 hr. Didactic and laboratory practice for treatment of the partially edentulous patients, and introduction to clinical complete denture prosthodontics.

335. *Pediatric Dentistry*. I and II. 2 hr. PR: Consent. Didactic instruction foundational to the dental care to children presented in the following modules of instruction: oral diagnosis/treatment planning/case presentation, prevention, restorative dentistry, pulpal therapy, management of the developing occlusion and trauma to the dentition and oral structures.
336. *Fixed Prosthodontics*. Yr. 6 hr. PR: Consent. Lectures and laboratory exercises involving principles and technics of crown and bridge prosthodontics. Topics include types of dental bridges, their indications, and contraindications.
337. *Oral Diagnosis*. II. 1 hr. Didactic instruction with further application of diagnosis procedures presented in DENT 303, extended to include special examination procedures and technics applicable to evaluating clinical problems.
339. *Oral Surgery*. II. 1 hr. Didactic instruction in basic surgical principles as applied to the extraction of teeth and dento-alveolar surgery.
340. *Periodontics*. I. 1 hr. Intermediate didactic instruction in periodontal therapy including basic surgery and post-operative care.
341. *Removable Prosthodontics*. S. 2 hr. Clinical demonstrations correlating the didactic and laboratory practices with the actual treatment of a removable prosthodontic patient.
342. *Periodontics*. I. 1 hr. PR: Consent. Clinical introduction to the practice of preventive dentistry.
345. *Principles of Orthodontics*. II. 1 hr. Facial growth and development, the development of dental occlusion, and etiology and classification of malocclusions.
346. *Orthodontic Technics*. S. 1 hr. Technical instruction in taking diagnostic records and constructing basic orthodontic appliances.
347. *Management of Medical/Dental Emergencies*. II. 1 hr. Assessment and treatment of the medical risk patient as related to the practice of dentistry. CPR instruction included.
348. *Operative Dentistry*. S. 1 hr. Cavity medications, biological reactions to restorative materials and techniques, bur technology, and clinical variations of cavity form and treatment. Treatment planning procedure is reviewed and examined.
349. *Hospital Dentistry*. S. 1 hr. Hospital protocol and hospital dentistry as related to various dental disciplines. Students will be assigned a one-week hospital rotation where they are involved in care of the hospitalized dental patient.
350. *Removable Prosthodontics*. Yr. 2 hr. Lectures concerned with clinical practice of complete and partial removable prostheses.
351. *Occlusion*. II. 1 hr. PR: Consent. Advanced study of the science of occlusion with particular attention to its impact on the clinical diagnosis and treatment of occlusal disorders.
352. *Community Dentistry*. Yr. 2 hr. Seminars, proseminars, and field experience in selected topics of professional communication, health education, and the sociology and psychology of community health.

354. *Introduction to Dental Implantology*. 1 hr. PR: Consent. Biological and scientific bases for implant dentistry; diagnosis, treatment planning, selection, placement, restoration, and maintenance of dental implants.
356. *Removable Prosthodontics*. II. 1 hr. Lectures in the theory and practice of maxillofacial prosthodontics and implant dentistry.
357. *Fixed Prosthodontics*. Yr. 2 hr. PR: Consent. Lectures concerned with clinical practice; diagnosis, treatment planning, treatment procedures, ceramics, esthetics, and occlusion.
358. *Operative Dentistry*. S. 2 hr. More complex and advanced techniques for clinical practice with emphasis on new developments throughout the scope of operative dentistry.
359. *Oral Surgery*. I and II. 2 hr. PR: Consent. Didactic instruction in patient evaluation, complicated exodontia, preprosthetic surgery, diagnosis, surgical and adjunctive treatment of disease, injuries, and defects of human jaws and associated structures.
361. *Pediatric Dentistry*. I. 1 hr. PR: Consent. Continued didactic instruction in dentistry for the child patient with the following learning packages programmed: abnormal dental development, oral habits, and adolescent dentistry.
362. *Endodontics*. I. 1 hr. Lectures on rationale, diagnosis, prevention, and nonsurgical and surgical treatment of diseases of the dental pulp and their sequelae.
363. *Periodontics*. Yr. 2 hr. Advanced didactic instruction in periodontal therapy including special surgical procedures.
364. *Pain and Anxiety Control*. I. 1 hr. PR: Consent. Instruction in the psychology, physiology, and clinical techniques of controlling pain and anxiety in the dental patient.
365. *Orthodontics*. II. 1 hr. Introduction to clinical orthodontics; lectures on case analysis, treatment planning, and clinical procedures involved in interceptive, preventive, and adjunctive treatment of malocclusions.
366. *Developmentally/Medically Compromised Child*. I, II. 2 hr. PR: Consent. Didactic instruction in dentistry for the developmentally disabled and/or medically compromised child.
369. *Practice Management II (Ethics and Law in Dentistry)*. 2 hr. PR: Junior standing in dentistry. Core knowledge of the ethical and legal issues in dentistry; ethical and legal decision making process.
370. *Community Dentistry*. S. 1 hr. PR: Consent. Clinical, social, and community health considerations in the oral health care of geriatric patients.
371. *Practice Management I*. 2 hr. PR: DENT 325. A lecture series on the fundamentals of practice management, including the organization and development of the practice, personnel and financial management, and the introduction to TEAM dentistry.
372. *Practice Management*. II. 1 hr. (Ethics.) Lectures and discussion on the principles of ethics applied to dental practice.
373. *Practice Management*. S. 1 hr. (Jurisprudence.) Lectures on the fundamental legal rights, obligations, and responsibilities of the dentist.

374. *Principles of Medicine*. I. 2 hr. General diseases about which the dental student should have intelligent working knowledge. Students are assigned to specific hospitalized patients to review their findings with the class.

375. *Practice Management*. Yr. and S. 1—3 hr. PR: Consent. Clinical practice using auxiliaries, including those trained in expanded functions.

376. *Removable Prosthodontics*. Yr. and S. 2—6 hr. Continued application of the theory and practice of removable prosthodontics.

377. *Periodontics*. Yr. and S. 1—4 hr. Clinical experience in the diagnosis and treatment of periodontal diseases.

378. *Practice Management-Law*. 1 hr. S. Select legal concepts and their relation to the practice of dentistry.

379. *Practice Management-Ethics*. 1 hr. S. Core knowledge of ethical issues in dentistry; the process of ethical decision making.

380. *Endodontics*. Yr. and S. 1—4 hr. Clinical endodontic instruction in order to develop the skills and judgment necessary to treat diseases of the dental pulp and their sequelae.

383. *Operative Dentistry*. Yr. and S. 2—8 hr. Instruction in the clinic setting includes comprehensive diagnosis and treatment planning, computer assisted records, plaque control, caries control, and single tooth restorations. Sufficient variety and depth of experience occurs to obtain competence for independent practice of operative dentistry.

384. *Oral Surgery*. Yr. and S. 1—3 hr. PR: Consent. Clinical instruction in outpatient and inpatient oral surgery necessary to provide comprehensive care for the dental patient.

385. *Orthodontics*. Yr. and S. 1—3 hr. Clinical management of selected malocclusion problems.

386. *Pediatric Dentistry*. I, II, S. 1—5 hr. PR: Consent. Instruction in the clinical setting with the goal of developing the psychomotor skills and judgment necessary to provide comprehensive care for the child patient.

387. *Clinical Oral Diagnosis*. Yr. and S. 1—3 hr. PR: Consent. Clinical application of principles presented in DENT 303 and 337, providing opportunities for observation and analysis of clinical problems.

388. *Pediatric Dentistry*. I, II, S. 1 hr. PR: Consent. Clinic experience in providing comprehensive dental care for the developmentally disabled and medically compromised child.

389. *Fixed Prosthodontics*. Yr. and S. 1—6 hr. PR: Consent. Clinical application of the theory and practice of crown and bridge dentistry.

390. *Clinical Endodontics*. I, II, S. 1-5 hr. (May be repeated for credit.) PR: Graduate of an accredited dental school and admission to the Advanced Education Program in Endodontics or consent. Clinical endodontic practice in the areas of: ordinary endodontic cases, complex endodontic cases, hemisection, root amputation, replantation, transplantation, endodontic implantation, vital pulp therapy, apexification, and bleaching.

391. *Endodontic Theory*. I, II, S. 2 hr. PR: Consent. Provides seminar discussions in the topics of: basic endodontic techniques, advanced endodontic techniques, endodontic literature review, case presentation, and advanced endodontic theory.

391. *Advanced Topics*. (Fourth Year.) I and II. 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

394. *Community Dentistry*. I, II. 1—15 hr. Field experience in various aspects of community health.

395. *Hospital Dentistry Practicum*. I, II. 2 hr. Hospital experience (remote site) in the various aspects of care of the hospitalized dental patient. Provides continuation of experiences gained in DENT 349.

396. *Clinical Oral Radiology*. Yr. and S. 1—3 hr. Clinical application of principles presented in DENT 303 and 327 with additional instruction in techniques and interpretation of radiographs with special emphasis to role played in oral diagnosis.

397. *Master's Degree Research or Thesis*. I, II, S. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

400. *Advanced Oral Surgery*. I, II, S. 1-12 hr. PR: Consent. Advanced study of therapeutics, hospital protocol, and surgical aspects of oral surgery involving lectures, seminars, demonstrations, and clinical applications.

490. *Teaching Practicum*. I, II. 1-3 hr. PR: Consent. Supervised practice in college teaching of dentistry.

497. *Research*. I, II, S. 1-15 hr.

Endodontics (ENDO)

390. *Clinical Endodontics*. I, II, S. 1-5 hr. (May be repeated for credit.) PR: Graduate of an accredited dental school and admission to the Advanced Education Program in Endodontics or consent. Clinical endodontic practice in the areas of: ordinary endodontic cases, complex endodontic cases, hemisection, root amputation, replantation, transplantation, endodontic implantation, vital pulp therapy, apexification, and bleaching.

391. *Endodontic Theory*. I, II, S. 2 hr. PR: Consent. Provides seminar discussions in the topics of: basic endodontic techniques, advanced endodontic techniques, endodontic literature review, case presentation, and advanced endodontic theory.

391. B. *Advanced Topics*. (Fourth Year.) I and II. 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

397. *Master's Degree Research or Thesis*. I, II, S. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

490. *Teaching Practicum*. I, II. 1-3 hr. PR: Consent. Supervised practice in college teaching of dentistry.

Orthodontics (ORTH)

391. *Advanced Topics*. (Fourth Year.) I and II. 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

397. *Master's Degree Research or Thesis*. I, II, S. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project..

416. *Biomechanics*. I, II, S. 2 hr. PR: Consent. Design and function of the teeth and their surrounding structures, and response of these tissues to orthodontic procedures.

418. *Orthodontic Materials*. I, II, S. 1 hr. PR: Consent. Physical properties of materials used in orthodontic appliances.

419. *Orthodontic Diagnosis*. I, II, S. 1-3 hr. PR: Consent. Seminar-type class on technique of patient examination, acquiring diagnostic records, and analyzing and correlating this information to the treatment of clinical problems.

420. *Cephalometrics*. S. 1-3 hr. PR: Consent. Use of radiographic cephalometry in studying growth of the human face, analysis of dentofacial malformations, and evaluation of orthodontic treatment.

421. *Orthodontic Mechanics*. I, II, S. 1-4 hr. PR: DENT 416, 417. Seminar and laboratory course on basic orthodontic mechanical properties.

423. *Growth and Development*. II. 1-5 hr. PR: Consent. Seminar-type course on normal and abnormal growth of the human head and its application to orthodontics.

425. *Orthodontic Seminar*. I, II, S. 1-8 hr. PR: Consent. Discussions involving all branches of dental science, with special emphasis on the orthodontic interest. Assigned topics and articles in the literature discussed.

426. *Orthodontic Clinic*. I, II, S. 1-12 hr. PR: DENT 416, 417. Clinical treatment of selected patients.

490. *Teaching Practicum*. I, II. 1-3 hr. PR: Consent. Supervised practice in college teaching of dentistry.

497. *Research*. I, II, S. 1-15 hr.

School of Medicine

Professional, Graduate, and Undergraduate courses

Anatomy (ANAT)

101. *Principles of Human Anatomy*. 4 hr. PR: BIOL 2 or equiv.; consent of instructor or chairperson. Lectures and demonstrations on the gross and microscopic anatomy of the human body including development. (Section 01 for pharmacy students; 02 for nursing and dental hygiene students.)

102. *Gross Anatomy*. II. 3 hr. PR: ANAT 101 and/or consent of instructor or chairperson. Functional gross anatomy of the back, extremities, head, and neck. (For physical therapy students.)

303. *Conceptual & Applied Gross Anatomy*. I. 10 hr. PR: Medical student standing or consent of chairperson. Gross anatomical study of the human body emphasizing conceptual, developmental and clinically-related topics.

305. *Microanatomy*. (For medical students and a limited number of regular full-time graduate students in the medical basic sciences.) II. 5 hr. PR: Medical student standing or consent of chairperson. Cells, tissues, and organs.

308. *Neuroanatomy*. (For students in physical therapy and a limited number of regular full-time graduate students in the medical basic sciences, and students in other health sciences.) II. 2 hr. PR: Consent of instructor or chairperson. Gross and microscopic structure of the central nervous system.
309. *Microanatomy and Organology*. (For dental students and a limited number of regular full-time graduate students in the basic sciences.) I. 5 hr. PR: Dental student standing or consent of chairperson. Cells, tissues, and organs.
312. *Special Topics in Anatomy*. I, II. 2–4 hr. per sem. PR: Consent of chairperson or instructor. Different topics of current interest in anatomy that are not included in the regular graduate courses.
314. *Applied Anatomy*. I, II. 2–6 hr. per sem. PR: Consent of instructor or chairperson. Detailed study of anatomy adapted to the needs of the individual student.
316. *Craniofacial Growth and Maturation*. I. 1 hr. PR: Consent of instructor. The current concepts of craniofacial growth and maturation are presented and integrated for application to clinical problems.
318. *Oral Histology and Embryology*. (For dental students and a limited number of regular full-time graduate students in the medical basic sciences.) II. 2 hr. PR: Dental student standing or consent of instructor or chairperson. Structure, function, and development of oral tissues.
319. *Advanced Head and Neck Anatomy*. 1 hr. PR: Dental, medical, or graduate student in basic sciences, or consent. Head and neck craniofacial anatomy as it applies to specialties in dental or medical practice.
320. *Electron Microscopy*. II. 2–4 hr. PR: Consent. (For graduate students, upperclass students in the sciences, medical students.) Interdisciplinary. Introduction to cell fine structure and function. Preparation of biological specimens for electron microscopy.
324. *Human Gross Anatomy*. (For dental students and a limited number of regular, full-time graduate students in medical basic sciences.) 7 hr. PR: Dental student standing or consent of chairperson. Human anatomy including cadaver dissection for dental students. 4 hr. lec., 3 hr. lab.
401. *Advanced Gross Anatomy*. I, II. 2–6 hr. per sem. PR: ANAT 303 or 324 and consent of instructor or chairperson. Morphological and functional analysis of a selected region, with dissection.
402. *Advanced Developmental Anatomy*. II. 2–4 hr. per sem. PR: ANAT 303 or 324 and consent of instructor or chairperson. Detailed developmental anatomy of the fetal period and infancy. With dissections and analysis of variations and malformations.
403. *Seminar*. I, II. 1–6 hr. (1 hr. per sem.) (Course may be repeated.) PR: Consent of Graduate Committee. Special topics of current or historical interest.
406. *Advanced Neuroanatomy*. I. 2–4 hr. per sem. (Course may be repeated.) PR: CC MD 375 and consent of instructor or chairperson. Detailed study of selected areas of the nervous system.
408. *Histochemistry*. II. (Odd numbered years.) 3 hr. PR: ANAT 305 or 309, biochemistry, and consent of instructor or chairperson. Histochemical theory and techniques.

451. *Advanced Microanatomy and Organology*. I, II, or S. 2–4 hr. PR: ANAT 305 or 309, or BIOL 263 and consent of instructor or chairperson. An extension of the major topics included in ANAT 305 or 309. Special emphasis on recent contributions.

490. *Teaching Practicum I and II*. 1–3 hrs. Consent of chairperson. Supervised practice in college teaching of anatomy. Graded as S or U.

491. *Advanced Anatomy*. I, II. 1–6 hr. PR: Consent of chairperson.

497. *Research*. I, II, S. 1–15 hr. PR: Consent of Graduate Committee. (May be repeated as needed with consent of Graduate Studies Committee.)

Anesthesiology (ANES)

301. *Basic Sciences Applied to Anesthesia*—Medicine I and II. 1-6 hr. per year. PR: Consent. (Not offered during summer.) Examination and evaluation of data, decision-making, discussion of special procedures. (Max. enrollment: 10.)

331. *Clinical Clerkship in Anesthesiology/Acute Medicine*. (Third Year.) CR.

A. Lectures to Third-Year Students on Topics Related to Anesthesiology.

B. Clinical Clerkship in Acute Medicine. Preanesthetic evaluation, local and systemic anesthesia, airway management, cardiopulmonary resuscitation, respiratory care, clinical pharmacology, toxicology, fluid and blood therapy, and pain management. Seminars and practical exercises in emergency cardiac life support clinical experience in ICU or OR. (Duration: 2 weeks.)

399. *Selective Experiences in Anesthesiology*. (Fourth Year.) CR. (See Conjoined Courses.)

Behavioral Medicine and Psychiatry (BMP)

311. *Introductory Psychiatry*. (First Year.) II. 2 hr. An examination of normal psychological development; consideration of the doctor-patient relationship and physician impairment. A preceptor model is used to introduce the patient to interviewing, emphasizing the mental status examination.

321. *Introductory Psychiatry*. (Second Year.) I. 2 hr. Continuation of BMP 311 with an in-depth look at basic science and social science parameters in psychiatry. Major clinical syndromes along with biological and environmental concomitants are presented. Advanced psychiatric interviewing is the focus of the preceptorship.

341. *Clinical Clerkship in Psychiatry*. (Third Year.) CR. Required of third-year medical students. Full-time assignment to the inpatient service in psychiatry, and participation and treatment of psychiatric disorders. Emergency Room responsibility.

399. *Selected Experiences in Behavioral Medicine and Psychiatry*. (Fourth Year.) (See Conjoined Courses.)

Biochemistry (BIOC)

139 *Introduction to Biochemistry*. I. 4-5 hr. PR: General chemistry. (For medical technology and pharmacy students; others by consent.) Lecture and conference, 4 hr.; Laboratory/demonstration, 1 hr.

192. *Selected Topics in Biochemical Research*. I, II, S. 1-6 hr. (May be repeated for a maximum of 12 hr.) PR: Consent.

231. *General Biochemistry*. I. 7 hr. PR: General chemistry, organic chemistry. (For medical students; others by consent.) Consists of seven main lectures, one clinical correlation lecture and one problem session per week.

239. *Clinical Chemical Techniques*. II. 4 hr. PR: BIOC. 139, 231 or equiv. (Primarily for medical technology students; open to other qualified students by consent.)

305. *General Biochemistry*. II. 4 hr. PR: Inorganic chemistry, organic chemistry, and consent. (For dental and graduate students.) Lecture, conference, and demonstration.

399. *Special Topics*.

A. I, II. 1-2 hr. PR: Consent. Journal Club, Teaching and Laboratory Rotations.

B. I (4 hr.), II (3 hr.). PR: General chemistry, organic chemistry. For graduate students in basic sciences programs.

490. *Teaching Practicum I and II*. 1-3 hr. Consent of chairperson. Supervised practice in college teaching of biochemistry. Graded as S or U.

491. *Advanced Study*. I, II. 1-6 hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

496. *Graduate Seminar*. I, II. 1 hr. PR: Consent. Presentation and discussion of special topics.

497. *Research*. I, II, S. 1-15 hr. PR: Consent.

Community Health Promotion (CHPR)

50. *History and Philosophy of Health Education*. 3 hr. Provides the student with an historical perspective of health education's development, its present status, and its current philosophical foundations.

70. *Health of the Individual*. 3 hr. Examines personal health-related problems in terms of information, services, and action, as they relate to attainment and maintenance of individual health.

71. *Health in the Community*. 3 hr. Develops an understanding of the organization, structure, and function of official, voluntary, and professional community health components in terms of their protecting and maintaining the health of the community.

72. *First Aid and Emergency Care*. I, II, S. 3 hr. Emergency aid for the sick and injured. Emergency services aimed at reducing the potential of permanent disability or threats to life, as well as pain, damage, or suffering of less serious nature.

101. *Elementary School Health Program*. 2 hr. PR: ED P 103 or 105 and junior or senior standing. The organization, educational aspects, and personnel relationships involved in school health services, healthful school living, and health education.

102. *Secondary School Health Program*. 2 hr. PR: ED P 103 or 105 and junior or senior standing. The organization, educational aspects, and personnel relationships involved in school health services, healthful school living, and health education.

104. *Organization and Administration of the School Health Program*. 3 hr. PR: CHPR 71. The underlying philosophy for the organization, structure, administrative policies and procedures, and legal aspects of the school health program.

191. *Special Topics*. I, II, S. 1-3 hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

220. *Drug and Alcohol Abuse Prevention*. 3 hr. Experiences designed to prevent the development of abuse drug-taking relationships by focusing on psychological variables such as self-esteem, coping skills, and development of support networks.

290. *Women and Health*. 3 hr. Examination of theories, myths, and practices surrounding women's physical and mental health from both historical and present-day perspectives. Exploration of specific health issues and controversies and the rise of the women's health movement.

301. *Advanced School Health*. 3 hr. PR: Graduate standing and consent. Analysis of problems in school health services, healthful school living, nature of health education, and scope of health instruction which confronts teachers and administrators.

307. *Community Health: Human Sexuality*. 3 hr. PR: Consent. Analysis of sex-related issues including parenting, sex education, sexual sanctions, pornography, sexual dysfunction, and sexual variance. Designed for teachers, health professionals, and interested lay people.

308. *Community Health: Death Education*. 3 hr. PR: Consent. Surveys death/dying from humanistic viewpoint. Examines philosophical, psychological, legal, and sociological aspects of death, grief, and mourning. Appropriate for teachers, health professionals, and others desiring understanding of death as a part of living.

309. *Community Health: Drug Education*. 3 hr. PR: Consent. Designed to help students learn appropriate components of a drug education program, gain an understanding of drug taking in this society, and acquire insights into dependent behaviors.

310. *Introduction to Health Promotion*. I. 3 hr. Historical foundations of professional health education; required skills and competencies; settings for health education.

311. *Community Health Promotion*. I. 3 hr. Various aspects of community health promotion; theories of community health program models; educational, social, and environmental interventions; demographical and epidemiological analyses.

312. *Analysis of Health Behavior*. I. 3 hr. The role of individual behavior in attaining health; integration of the concepts of health education and behavioral science to facilitate changes in health behavior.

314. *Injury Prevention and Control*. I. 3 hr. CONC: CHPR 311, or consent. Injury as a public health concern; strategies and programs for injury prevention; morbidity and mortality; behavioral objectives for *Health People 2000*.

320. *Roles and Functions of Health Educators*. 3 hr. PR: Graduate standing and consent. An investigation of the roles and functions of the health educator in a variety of community settings including hospitals, clinics, voluntary agencies, etc.

332. *Safety Education Principles and Content*. 3 hr. PR: CHPR 131 or consent. Study and analysis of content areas usually recommended for instructional programs within the field of safety with emphasis on structured learning experiences. (3 hr. lec.)

333. *Foundations of Wellness*. I. 3 hr. Issues of personal life-style management; emphasis on concepts, behaviors, theories, strategies, and methods.

334. *Health Promotion Research and Statistics*. II. 3 hr. PR: CHPR 310, 311, 303, or consent. Measurement and evaluation of strategies, methods, and techniques for health promotion; issues of program evaluation; health promotion research.

335. *Management for Health Promotions Professions*. 3 hr. PR: CHPR 310, 311, and 312, or consent. The course provides health promotion students with the essential skills to be effective managers in the community health environment.

338. *Design of Health Promotion Programs*. I, II. 3 hr. PR: CHPR 310, 311, and 312, or consent. Principles of program development; techniques and models for successful programs; the impact of community restraints.

348. *Applied Health Promotion Programs*. I, II. 3 hr. PR: CHPR 310, 311, and 312; PR or CONC: 338. Identification of specific educational needs; development of corrective and comprehensive programs; documentation of the problem, the program, and the implementation.

350. *Practicum*. 1-12 hr. PR: Majority of plan of study completed and consent. Students are assigned to a field placement based on prior health promotion work experience. Under the supervision of faculty, students assume major responsibility for a program with a community health promotion organization.

355. *Traffic Safety Management*. 3 hr. PR: CHPR 151 or equiv. (May not be taken for both undergraduate and graduate credit.) Elements of traffic safety management in public and private sectors are examined. Role of management organization, approaches, and programs is examined in light of the need for a safe and efficient highway transportation system. 3 hr. lec.

357. *Alcohol Safety Programs*. 3 hr. Topics include alcohol programming in schools, community, and the workplace. Approaches, programs, and materials are examined for use at the local level. Scientific reports are studied to determine the effectiveness of various approaches to the alcohol problem.

373. *Professional Development*. 1-6 hr. (May be repeated for credit.) PR: Departmental consent. Specially designed experiences for those interested in advancing professional skills in a particular specialty. (Not for degree credit in programs in the College of Human Resources and Education.)

391. *Advanced Topics*. 1-6 hr.

397. *Master's Degree Thesis*. 1-15 hr.

482. *Supervised Applied Health Education Project*. 1 hr. PR: Advanced graduate standing or consent. Doctoral students only. Plan and conduct a health education intervention in other than a classroom setting, i.e., a defined community.

483. *Supervised Health Education Research Report*. 1 hr. PR: Advanced graduate standing and consent. Doctoral students only. A written report of empirical research of either a survey or an experiment.

490. *Teaching Practicum*. 1-3 hr. PR: Graduate standing and consent. Supervised practices in college teaching of health-related learning experiences.

491. *Advanced Study*. 1-6 hr. PR: Graduate standing and consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

Community Medicine (CMED)

311. *Methods of Biostatistics*. I. 3 hr. PR: MATH 3. Basic concepts of statistical models, distributions, probability, random variables, test of hypotheses, confidence intervals, regression, correlation, F and χ^2 distributions, analysis of variance with emphasis on methods of biostatistics. (Equiv. to STAT 311.)

312. *Community Medicine*. (Second Year.) II. 2 hr. PR: Consent. The role of the physician in the prevention of disease and in the examination of health status in a community, with reference to demographic, economic, sociologic, environmental, and occupational factors. The organization of public health and medical care.

322. *Epidemiology and Biostatistics*. (First Year.) II. 2 hr. PR: Consent; medical students only. Epidemiological and statistical analysis of biologic phenomena as related to medicine. Emphasis on descriptive statistics, analytical epidemiology, statistical inference, measures of association, and evaluation of medical literature.

391. *Advanced Topics*. 1-6 hr. PR: Consent.

397. *Master's Degree Research or Thesis*. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

399. *Critical Review of Literature*. I & II. 1 hr. PR: MD or Consent. A review of current literature in occupational and environmental medicine, focused on analysis of validity and procedures followed; scrutiny of research reports, their design, methodology, data handling, documentation, and discussion of the data base. 1 hr. conf.

401. *Law and the Workplace*. SI. 1 hr. PR: MD degree, graduate standing, or consent. Philosophy, content, and procedures of current judicial bodies relevant to the practice of medicine in the industrial society, developed through a series of lectures followed by extensive discussion involving students from different curricular backgrounds. 1 hr. sem.

412. *Medical Aspects of Environmental Health*. I & II. 1 hr. PR: MD degree or consent. A review of issues illustrating the responsibilities' and professional interaction of physicians in identifying, managing, and preventing casualties from environmental causes in air, water, soil, food, pesticides, and related subjects. 1 hr. lec.

490. *Teaching Practicum I and II*. 1-3 hr. Consent of chairperson. Supervised practice in college teaching of anatomy. Graded S or U.

491. *Advanced Study*. 1 hr. PR: Consent.

492. *Directed Study*. I, II, S. 1-6 hr. Directed study, readings, and research.

493. *Special Topics*. I, II, S. 1-6 hr. A study of contemporary topics selected from recent developments in the field.

494. *Special Seminars*. I, II, S. Special seminars arranged for advanced graduate students.

495. *Independent Study*. I, II, S. 1-6 hr. Faculty supervised study of topics not available through regular course offerings.

496. *Seminar in Occupational Medicine*. I & II. 2 hr. PR: MD degree or consent. Current topics in occupational medicine practice, diagnostic, managerial, preventive, and epidemiological aspects, reviewed in a format of clinical discussion; multidisciplinary approach to clinical problems.

497. *Research in Occupational Medicine*. I & II. Variable credit. PR: Consent. Exercises in investigational medicine, illustrating the requirements and procedures relevant to the description and quantification of current issues in occupational medical practice.

498. *Thesis*. 2-4 hr. PR: Consent.

499. *Graduate Colloquium*. 1-6 hr. PR: Consent. For graduate students not seeking course work but who wish to meet residence requirements, use University facilities, and participate in academic and cultural programs.

Conjoined Basic Sciences Courses (CC MD)

350. *Radiation Safety and Radionuclide Usage*. II. 1-2 hr. PR: PHYS 1 and 2, CHEM 15 and 16 or consent. Chemical, physical, and biological aspects of radiation; safety; handling and storage of radioactive materials; NRC and WVU regulations and licensing; detection and instrumentation, research, and clinical use of radioisotopes.

370. *Medical Genetics*. II. 2-4 hr. PR: Second-year medical student standing; graduate student in Genetics and Developmental Biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Application of genetic principles to human health and disease. (Also listed as GEN 370, MED 370, PEDI 370.)

375. *Neurobiology*. (For medical and a limited number of regular, full-time graduate students in the medical basic sciences.) II. 6 hr. PR: ANAT 301 and PSIO 345, or consent. Anatomy and physiology of the nervous system correlated with clinical neurology.

399. *Selective Experiences in Medicine*. (Fourth Year.) I, II, S. CR. PR: Satisfactory completion of the first three years of medical curriculum. (Graded as S or U.) [The fourth year offers a wide range of opportunities. A one-month rotation in critical care, surgical subspecialty either a medicine, family medicine, or a pediatric subinternship and two months of a rural primary care rotation are all required in the fourth year. The student works with an adviser to select the remainder of the individual program. This program must also be approved by the associate dean in the Office of Student and Curricular Affairs. The year is composed of ten one-month blocks, four months of which must be spent in programs in West Virginia. Selections are available in all departments within the School of Medicine. A catalog is available that lists the specific guidelines for the fourth-year curriculum.]

Exercise Physiology (EXPH)

164. *Kinesiology*. I, II. 3 hr. PR: Junior standing. Anatomical, mechanical, and musculoskeletal study of the human body as the instrument for efficient performance of motor activities. (Laboratory work included.)

165. *Physiology of Motor Activities*. I, II. 3 hr. PR: Junior standing. Human functions under stress of motor activities. (Laboratory work included.)

191. *Special Topics*. I, II, S. 1-3 hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses. (Conditioning Techniques and Methods. I, II. 3 hr.)

194. *Professional Field Experience*. I, II, S. Variable credit 1-18 hr. PR: Consent (May be repeated up to a maximum of 18 hours.) Prearranged experimental learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development. (Internship.)

196. *Senior Thesis*. I, II, S. 1-3 hr. PR: Consent. (3 hr. Arranged).

360. *Biomechanical Analysis of Sport and Physical Activity*. II, S. 3 hr. PR: EXPH 164 and 165 or equiv.; SS 315. Advanced principles of body mechanics and analysis of muscle and joint actions in coordinated movement and neuromuscular physiology.

367. *Theories of Sport Physiology*. I, S. 3 hr. PR: SS 315. Thorough and workable knowledge of principles involved in the interactions of muscles and nerves, reflexes, metabolism, cardiopulmonary function, environmental physiology, and the practical application of work physiology.

491. *Advanced Study*. I, II, S. 1-6 hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures. (*Laboratory Techniques and Methods*. I, S. 3 hr.; *Diabetes and Exercise*. II. 3 hr.; *Internship*. I, II, S. 6 hr.)

492. *Directed Study*. I, II, S. 1-6 hr. Directed study, reading, and/or research. (*Stress Testing*. II. 3-6 hr.)

Family Medicine (FMED)

331. *Clerkship*. PR: Successful Completion of first two years of medical school. A four week ambulatory experience in the office setting; rotations to clinics within the University system and also to private practitioner offices throughout the state, lecture. Laboratory, conference, and patient care.

Medical Technology (MTEC)

1. *Orientation to Medical Technology*. I, II. 2 hr. Introduction to the profession of medical technology and the clinical laboratory specialties. (Pass/Fail grading only.)

100. *Medical Technology*. 4 hr. PR: Acceptance into the Medical Technology Program as a first-year student or consent by Director. Clinical laboratory procedures employed in patient diagnosis in the areas of blood coagulation, blood banking, hematology, and clinical microscopy.

101. *Medical Technology 2*. II. 4 hr. Continuation of MTEC 100.

200. *Orientation*. I, II, S. No credit. (For senior students.) Principles and practices of medical technology in relation to the hospital and clinics. (Pass-Fail grading only.)

201. *Phlebotomy*. I, II, S. 1 hr. PR: Enrollment in Medical Technology Program, MT 100 and 101. Clinical laboratory practice, including venipuncture, finger sticks, and heel sticks; isolation, universal precaution and other safety techniques are included.

202. *Laboratory Math, Quality Control, Computers*. I. 2 hr. Lectures and practice sessions in laboratory mathematics, techniques, and calculations in quality control and an introduction to computers to include terminology and basic operation.

210. *Clinical Laboratory Mycology*. II. 1 hr. How to isolate and identify the more commonly encountered pathogenic fungi as well as those fungi frequently seen as laboratory contaminants. The course will include basic taxonomy, isolation procedures, and identifying characteristics.

220. *Immunohematology and Blood Banking*. I, II. 2 hr. Lectures on immunohematology and blood banking theory and practice.

221. *Immunohematology and Blood Banking Laboratory*. Arranged. 5 hr. Clinical laboratory practice in blood banking procedures. Emphasis on procedures required for collection and preparation of blood and blood components for transfusion, special techniques, antibody studies, and problem solving.
229. *Basic Clinical Chemistry*. II. 1 hr. PR: Students in Medical Technology Program. Basic clinical chemistry procedures and theory. 1 hr. lec.
230. *Clinical Chemistry*. I, II. 2 hr. Lectures on principles of clinical chemistry procedures; their clinical significance and implication in diagnosis.
231. *Clinical Chemistry Laboratory*. Arranged. 5 hr. Practice in the clinical chemistry laboratory.
240. *Clinical Hematology*. I, II. 2 hr. Lectures in hematologic theory and practice.
- 241 *Clinical Hematology Laboratory*. Arranged. 5 hr. Application of hematological principles to laboratory medicine. Emphasis on routine and specialized procedures, evaluation and problem solving.
250. *Clinical Microbiology*. I, II. 2 hr. Presentation and discussion of current methodology employed in the processing of clinical microbiology specimens, isolation and identification of pathogenic microorganisms, and determination of antimicrobial sensitivities.
251. *Clinical Microbiology Laboratory*. Arranged. 5 hr. Practice in the clinical microbiology laboratory to include isolation and identification of microorganisms; processing of specimens and antibiograms. Includes experiences in pathogenic mycology and parasitology.
260. *Instrumentation*. I, II, S. 2 hr. Principles of clinical laboratory instrumentation for medical technologists including principles of operation, maintenance, and troubleshooting.
265. *Laboratory Management*. I, II. 2 hr. Laboratory organization, economics, ethics, and records.
270. *Clinical Microscopy*. I, II, S. 1 hr. PR: Senior standing in Medical Technology or consent. Lecture to cover the screening of body fluids (urine, gastric juices, etc.) for abnormalities and pregnancy testing.
271. *Clinical Microscopy Laboratory*. I, II, S. 1 hr. PR: Senior standing in Medical Technology, or consent. Laboratory practicum in urinalysis, gastric analysis, pregnancy tests, and other procedures.
275. *Medical Relevance of Laboratory Analysis*. 1 hr. PR: Senior status in Medical Technology. Case presentations of pathologic entities encountered in the clinical laboratory. (Pass/Fail grading.)
280. *Clinical Immunology*. I, II, S. 3 hr. Lectures and laboratory practice in the principles of clinical immunology and their relationship to clinical laboratory technology.
291. *Research, Educational Methodology*. II. 2 hr. Lectures in ethics, techniques of research, and techniques of educational methodology for medical technology students.
300. *Seminar*. I, II, S. 1 hr. Seminars include topics in laboratory management and education in medical technology, and timely topics. Minimum of three semester hours

to include all three topics is required of all graduate students in the medical technology program.

391. *Advanced Topics*. I, II, S. 1-6 hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses.

397. *Research*. I, II, S. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

Medicine (MED)

321. *Physical Diagnosis—Introduction to Medicine*. I, II. 5 hr. PR: Consent. Examination of normal subjects. Clinical concepts and practical experience in history taking and physical examination.

331. *Clinical Clerkship in Medicine*. (Third Year.) CR. Required of third-year medical students. The individual student is assigned responsibility for specific patients from the inpatient and outpatient service at West Virginia University Health Science Center or Charleston Area Medical Center service. The student is an integral part of the team providing diagnostic and treatment services needed by the patient, under direct supervision of members of the faculty of the department. The student elicits the patient's history, performs physical examinations, and performs or secures indicated laboratory and clinical studies. The student records findings and presents case reports for discussion by members of the faculty during hospital rounds or outpatient clinics. The student attends such staff conferences, etc., as directed by the departments. Clerkship in medicine occupies 12 weeks.

370. *Medical Genetics*. II. II. 2-4 hr. PR: Second-year Medical student standing; graduate student in Genetics and Developmental Biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Application of genetic principles to human health and disease. (Also listed as GEN 370, PEDI 370, CCMD 370.)

Microbiology and Immunology (MBIM)

26. *Microbiology II*. (For students in nursing and dental hygiene programs.); All students must have consent of instructor. I. 4 hr. PR: CHEM 11, 12 or equiv .

220. *Microbiology*. (For pharmacy students.) II. 4 hr. PR or Conc.: Biochemistry. Pathogenic microorganisms, including immunology and antimicrobial agents.

223. *Microbiology*. (For medical technology students; other students with consent.) II. 5 hr. PR or Conc.: Biochemistry. Basic microbiology. Emphasis on immunology, pathogenic microorganisms, and clinical laboratory techniques.

224. *Parasitology*. (For medical technology students; other students with consent.) II. 4 hr. Study of animal parasites and disease vectors with emphasis on disease manifestations, parasite biology and laboratory diagnosis.

301. *Microbiology*. (For medical students and a limited number of graduate students in the Health Science Center's basic science departments.) I. 5-7 hr. PR: Organic chemistry, biochemistry. Detailed study of pathogenic microorganisms and immunology. Emphasis on use of microbiology in solving clinical problems.

302. *Microbiology*. (For dental students only.) I. 5 hr. PR: Organic chemistry. Detailed study of pathogenic microorganisms. Emphasis on oral flora.

310. *Structure and Activities of Microorganisms*. II. 3 hr. PR or Conc.: Biochemistry, consent. Molecular biology of *e. coli* and other selected organisms.

317. *Special Problems in Microbiology*. I, II, S. 1-7 hr. per semester.

[A. *Graduate Immunology and Virology*. I. 3 hr. PR: Consent

Parasitology laboratory. II. 1 hr. PR: Consent.

B. *Graduate Pathogenic Microbiology*. II. 3 hr. PR: Consent.

C. *Special Problems in Post Graduate Dental Microbiology*. II. 4 hr. PR: Consent.]

327. *Parasitology*. (For graduate students.) II. 4 hr. PR: Consent. Study of animal parasites and disease vectors with emphasis on disease manifestations, parasite biology, laboratory diagnosis, and current concepts in parasitological research.

391. *Advanced Topics*. I, II, S. Variable 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

[A. *Laboratory Rotation*. I. 3 hr. PR: Consent; For graduate students in Microbiology and Immunology. Assigned study to develop research laboratory techniques. Graded S or U.

B. *Immunology*. I, II, S. VR. PR: Consent. Independent study in immunology.]

397. *Master's Degree Research or Thesis*. I, II, S. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project. [Students may enroll more than once. Graded S or U. Student is required to pursue study on a problem in the student's area of concentration.]

399. *Special Topics in Microbiology, Cell Biology*. II. 3 hr. PR: Biochemistry; 1 yr. undergraduate biology; consent. Lectures in selected areas of cell biology.

490. *Teaching Practicum*. I and II. 1-3 hr. PR: Consent. Supervised practices in teaching of microbiology. Graded as S or U.

491. *Advanced Study*.

Pathogenic Bacteriology. I. 2 hr. PR: MBIM 301, 310 or equiv. Consent. Pathogenic bacteriology with an emphasis on the mechanisms of pathogenesis. Topics include microbial adherence, toxin production and mechanisms, and normal flora and disease

Clinical Laboratory Bacteriology. II. VR. PR: MBIM 301, 310, or equiv. Consent. Lectures on the identification of pathogenic microorganisms with an emphasis on bacteria. The laboratory includes a rotation through the hospital clinical microbiology laboratory. Limited enrollment. Graded as S or U.

Microbial Genetics. I. 3 hr. PR: MBIM 310 or equiv. Consent. Molecular aspects of mutation, gene transfer mechanisms, genetic mapping, and genetic control using bacteria and bacteriophage systems as models.

Microbial Metabolism. II. 2 hr. PR: MBIM 310, or equiv., biochemistry, consent. Physiology, metabolism, and regulation of representative microbial groups.

Microbial Metabolism Laboratory. II. 1 hr. PR: Open to departmental graduate students only. Research techniques in metabolic regulation.

Medical Mycology. I. 3 hr. PR: Consent. Advanced study of fungi of medical importance, including the pathobiology of mycoses and toxicoses.

Molecular Virology. I. 3 hr. PR: MBIM 301, 310, or equiv., consent. Molecular biology of viruses that are important both biologically and medically. Includes a basic introduction to replication and genetics as well as current topics in molecular virology.

Developmental Immunology. I. 3 hr. PR: Consent. Examines the development of the lymphoid components of the immune system (B and T lymphocytes) and inter actions leading to effective immune responses.

Cellular and Genetic Basis of the Immune Response. I. 3 hr. PR: Consent. Emphasis is on contemporary issues in understanding the genetic and cellular elements that impact immune responses.

Contemporary Topics in Immunobiology II. 3 hr. PR: Consent. Detailed coverage of major issues of contemporary research in immunobiology.

Systems Immunology II. 3 hr. PR: Consent. An integrative systems approach to immunology stressing how immunologic recognition is translated into biologic consequences. Advanced treatment of different aspects of the efferent arm of immune responses.

496. *Seminar.* I, II. 1 hr. PR: Consent. Graduate students present at least one seminar to assembled faculty and students in Microbiology and Immunology. Graded as S or U.

497. *Research or Dissertation.* I, II, S. 1-15 hr. Students may enroll more than once. Graded S or U.

Neurology (NEUR)

341. *Clinical Clerkship in Neurology.* (Third Year.) CR. Required of third-year students. Basic fundamentals of the neurological evaluation and neurological diseases. Evaluation and treatment of hospitalized patients with neurological illnesses performed under supervision of attending and resident physicians. Conferences and correlative instruction in neuropathology and neuroradiology.

Obstetrics and Gynecology (OBST)

341. *Clinical Clerkship in Obstetrics and Gynecology.* (Required of third-year medical students.) Presents core knowledge of obstetrics and gynecology with small group instructional seminars, ward rounds, didactic teaching sessions and grand rounds conducted by faculty, house officers, visiting faculty, and students. Students participate in the care of all inpatients and attend all departmental clinics.

Pathology (PATH)

128. *Introduction to Basic Pathology.* I. 2 hr. PR: Enrollment in dental hygiene or physical therapy, or consent. A study of the basic pathologic processes in man.

129. *Introduction to Oral Pathology.* II. 3 hr. PR: PATH 128, dental hygiene major, or consent. Application of fundamental knowledge of general pathology to pathological conditions that occur in the oral cavity.

328. *General Pathology.* (For dental and graduate students). II. 5 hr. PR: Consent. The broad spectrum of human diseases is studied at the clinical, physiological, and biochemical levels.

338. *Oral Pathology.* (For dental students.) II. and S. 3 hr. PR: Consent; PATH 328. Application of knowledge gained in general pathology to study specific diseases affecting the oral cavity.

350. *Hematology.* 3 hr. (For certain graduate students, with consent of the chairperson.) Includes morphologic description of formed elements of blood including classification of red blood cell, white blood cell, and platelet disorders. Case material and slide reviews are integral parts of the course work.

351. *Pathology and Laboratory Medicine 1.* (For medical students and limited number of regular full-time graduate students in medical basic sciences and consent of the chairperson.) I. 8 hr. PR: Medicine I Curriculum. Presents pathology as a body of knowledge and a discipline, including laboratory aspects of disease. General pathology, including cell injury, inflammation, neoplasia, thrombosis and circulatory disturbances, is followed by a systemic approach to disease states.

352. *Pathology and Laboratory Medicine 2.* (For dental students and limited number of regular full-time graduate students in medical basic sciences and consent of the chairperson.) II. 7 hr. PR: Path 351. Continuation of Path. 351.

353. *Oral Pathology.* (For dental students.) I. 2 hr. PR: Consent; DENT 338. Continuation of DENT 338.

355. *Clinico-Pathologic Correlation Conference.* (For dental students.) II. 1 hr. PR: Consent; DENT 338, 353. Interesting oral lesions are demonstrated clinically, radiographically, and histologically. Diagnosis is established and treatment discussed by faculty and students.

356. *Advanced Pathology.* I, II. 3 hr. PR: Path. 328 or 351; consent. Microscopic and gross specimens from selected autopsies.

382. *Advanced Oral Histopathology.* (For dental and graduate students, residents, and interns.) I and II. 1 hr. PR: Consent; DENT 338, 353. An elective seminar stressing the significant microscopic features and diagnosis of various oral lesions.

401. *Special Studies in Oral Pathology.* (For dental and graduate students, residents, and interns.) I. 1—3 hr. PR: Consent. Advanced study of local or systemic disease processes affecting oral structures through seminars, assignment of specific topics, or research activities.

491. *Advanced Study.* I, II, S. 1-6 hr. PR: Consent. Investigation in advanced topics which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

497. *Research.* 1-15 hr.

Pediatrics (PEDI)

331. *Clinical Clerkship in Pediatrics.* (Third Year.) CR. Required of third-year medical students. See description of clinical clerkship under MED 331. Clerkship in Pediatrics occupies 6 weeks.

370. *Medical Genetics.* II. 2-4 hr. PR: Second-year Medical student standing; graduate student in Genetics and Developmental Biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Application of genetic principles to human health and disease. (Also listed as CCMD 370, GEN 370, MED 370.)

Pharmacology and Toxicology (PCOL)

160. *Pharmacology.* (For undergraduate students in the paramedical sciences.) II. 3 hr. Interactions of clinically useful therapeutic agents with the mammalian system.

243. *Pharmacology for Pharmacy Students.* I. 4 hr. PR: Completion of first year in Pharmacy; approval of course director. Principles, pharmacodynamic actions, and therapeutic applications of clinically useful drugs.

360. *Pharmacology and Therapeutics*. (For dental and graduate students.) I. 4 hr. PR: Dental student standing or consent. Lecture and demonstrations on pharmacological actions and therapeutic uses of drugs.

361. *Pharmacology* (For medical students and a limited number of regular, full-time graduate students in basic medical science departments.) II. 1-6 hr. PR: Consent of department chairperson. Lecture-conference-laboratory on principles, pharmacodynamic actions, and therapeutic applications of clinically useful drugs.

362. *Occupational Toxicology*. II. 3 hr. PR: Consent. General principles of toxicology with special emphasis on occupational health. Classes of chemicals which pose problems in the workplace will be emphasized.

364. *Advanced Pharmacology*. I. (Alternate Years.) 1-6 hr. PR: PCOL 361 or consent. Advanced lectures and discussion of general principles of pharmacology and toxicology and advanced lectures in biochemical, endocrine, pulmonary, and cardiovascular pharmacology. 1-6 hr. lec. (Offered every second year.)

367. *Advanced Neuropsychopharmacology*. I. 1-6 hr. PR: PCOL 361 or consent. Advanced lectures and discussion on drug receptor theory, neurophysiological aspects of pharmacology, hypersensitivity, and the actions of drugs on the central and peripheral nervous system. 1-6 hr. lec. (Offered every second year.)

461. *Seminar in Pharmacology*. I, II. 1 hr. per sem. PR: PCOL 361 or graduate status in basic medical sciences.

462. *Literature Survey*. I, II. 1 hr. per sem. PR: Graduate status in pharmacology and toxicology. Current literature pertinent to pharmacology and toxicology including journals of allied biological sciences.

490. *Teaching Practicum*. I, II. 1-3 hr. per sem. PR: PCOL 361 and consent. (For advanced graduate students.) Critical evaluation of preparation and delivery of lectures in specified areas of pharmacology and toxicology.

491. *Advanced Study*. I, II. 1-6 hr. PR: Consent of chairperson.

Physical Therapy (PT)

110. *Functional Anatomy*. I. 3 hr. The musculoskeletal system including biomechanics, principles of movement, and analysis of muscle and joint action. Normal and pathological gait.

111. *Physical Therapy Principles and Physical Agents*. I. 4 hr. Lecture- laboratory introduction to physical therapy and orientation to patients. Safety procedures, gait training, and nursing procedures related to physical therapy. Theory and application of hydrotherapy, thermotherapy, cryotherapy, actinotherapy, massage, and ultrasound are presented.

112. *Cardiopulmonary Physical Therapy*. II. 3 hr. Correlation of anatomy, physiology, and pathology for treatment of cardiopulmonary conditions. Laboratory in cardiopulmonary evaluation, cardiac and pulmonary rehabilitation procedures, and respiratory treatment techniques. Lectures and case presentations in appropriate medical and surgical conditions.

114. *Medicine and Neurology*. II. 3 hr. Lectures in medicine including dermatology, aging, neurology, pharmacology and vascular disorders.

116. *Clinical Education 1*. II. 1 hr. Students perform basic treatment procedures under the supervision of experienced therapists in various clinics. (Graded Pass-Fail only.)

117. *Seminar*. I. 1 hr. Investigation of selected problems and issues.

118. *Basic Therapeutic Exercise*. II. 3 hr. Theory and clinical application of evaluation techniques including goniometry and manual muscle testing. The physiological basis and therapeutic application of passive and active forms of exercise are also studied. Emphasis is on progressive resistive and flexibility exercises.

120. *Human Development*. I. 3 hr. Presents human development across the life span with a special emphasis on neuromotor development. Topics include genetics, embryology, infancy, childhood, adolescence, adulthood, aging, and death.

130. *Functional Anatomy 2*. II. 3 hr. Continuation of PT 110 with emphasis on normal movement to serve as a basis for critical evaluation of abnormal body movement. Includes biomechanical measurements, calculations, applied anatomy, body mechanics, and gait.

270. *Organization and Management*. II. 4 hr. Basic principles and philosophy of management and the organization with emphasis on interpersonal relationship within an organization, styles of tasks, conflict management, verbal and nonverbal communications, decision analysis and fiscal management.

271. *Electrotherapy and Electromyography*. I. 4 hr. Orientation to theory and application of electrical currents. Laboratory experience in electrical diagnosis and treatment procedures (including high and low volt stimulation, nerve conduction studies, and the use of electrical stimulation for pain control) is provided.

272. *Professional and Community Relationships*. II. 2 hr. Community health organization, including local, state, and national facets such as Medicare- Medicaid and welfare. Planning based on chronic disease epidemiology. Role of physical therapist and other allied health personnel in providing comprehensive health care for chronically ill and geriatric population. Students become involved in care of the home-bound.

273. *Physical Evaluation*. I. 4 hr. Lectures, laboratory practice, and case study presentations are utilized to study the principles and techniques for examining the treatment disorders of the neuromusculoskeletal systems. An in-depth study of extremity joint mobilization techniques is also provided.

274. *Orthopedic Physical Therapy*. II. 3 hr. Continuation of PT 273 format and is a continuation of that course. Evaluation and rehabilitation of mechanical disorders of the spine are emphasized together with physical therapy and orthopedic management of selected pediatric disorders.

275. *Professional Literature and Research*. I, I. 3 hr. Introduces research theory and application with special emphasis on physical therapy. Includes elements of research design, hypothesis testing, methodology, literature review, analysis, and statistical methods. Students are required to complete a research proposal.

276. *Elective Study*. II. 3 hr. Highly skilled techniques used in physical therapy are many and varied. It is beyond the scope of any baccalaureate program to offer such skill to every student in all areas. Therapists are beginning to specialize in certain areas. The student chooses a particular area and develops it to the student's fullest capabilities in the allotted time.

277. *Clinical Teaching*. I. 2 hr. Emphasis on the physical therapist fulfilling numerous teaching roles. Students develop skill and techniques in the facilitation of learning, objective writing, presenting information, A-V utilization, and development of evaluation tools for both clinical and didactic settings.

278. *Correlative Rehabilitation*. II. 5 hr. Lecture, case presentations, and laboratory practice concerning the pathology, evaluation, and treatment in the areas of spinal cord injuries, amputations, and burns. Underlying philosophy and principles of comprehensive care of the handicapped. Prosthetics, orthotics, bowel and bladder training, assistive and supportive devices, and wheelchair evaluations.

279. *Advanced Therapeutic Exercise*. I. 4 hr. Correlation of the basic principles acquired from study of gross anatomy, neuroanatomy, pathology, physiology, and fundamental anatomy with the scientific application of bodily movement. In-depth study of types and desired effects of exercise methods and techniques primarily concerned with neuromuscular reeducation. Laboratory practice consists of application of specific neurophysiological techniques to patients presented with various neuromuscular problems.

281. *Clinical Education 2*. I. 1 hr. Continuation of PT 116. The student's participation in treatment programs is increased and enlarged to include basic testing and evaluation procedures. (Graded Pass-Fail only.)

282. *Clinical Education 3*. II. 1 hr. Supervised experience in more specialized procedures and testing techniques and patient program design. (Graded Pass-Fail only.)

285. *Professional Literature and Research 2*, II. 3 hr. Continuation of PT 275. Students carry out data collections, analysis, and interpretation of their own supervised independent research projects. Written and oral presentations of the completed projects are required.

290. *Clinical Education 4*. S. 1-12 hr. Three full-time summer affiliations of six to eight weeks each in a variety of extramural facilities, such as a general hospital, children's facilities, rehabilitation services, and public health. (Graded Pass-Fail only.)

Physiology (PSIO)

141. *Elementary Physiology*. (For undergraduate students in paramedical sciences.) II. 4 hr. PR: College biology and chemistry, or consent. Systematic presentation of basic concepts. 3 hr. lec., 1 hr. lab.

241. *Mechanisms of Body Function*. 4 hr. PR: College chemistry, biology, physics, and algebra or graduate status and consent. A systematic examination of the homeostatic functions of the human body with emphasis on the physicochemical mechanisms involved. Pathophysiology and clinical correlations are introduced in relation to normal physiology.

341. *Physiological Methods 1*. II. 1-5 hr. PR: Consent. Research techniques and strategies for physiology.

342. *Physiological Methods 2*. II. 1-5 hr. PR: Consent. Research techniques and strategies for physiology

343. *Fundamentals of Physiology*. (For dental students and a limited number of regular full-time graduate students in the Health Sciences Center's basic sciences departments.) I. 5 hr. PR: College physics, algebra, chemistry, and consent of department chairperson. Analysis of basic facts and concepts relating to cellular processes, organ systems, and their control. 3 lec., 1 conf., 1 lab.

344. *Medical Physiology 1*. (For medical and a limited number of regular full-time graduate students in the Health Sciences Center's basic sciences departments basic sciences departments.) I. 5 hr. PR: College physics, algebra, chemistry, and consent of department chairperson. Analysis of basic facts and concepts relating to cellular processes, organ systems, and their control with clinical correlations. 5 lec., 1 conf.-lab.

345. *Medical Physiology 2*. (For medical and a limited number of regular full-time graduate students in the Health Sciences Center's basic sciences departments.) II. 5 hr. PR: PSIO 344 and consent of department chairperson. Continuation of PSIO 344. 5 lec., 1 conf.-lab.

346. *Neurophysiology*. (For graduate students in the Health Sciences Center's basic sciences departments and a limited number of regular full-time graduate students.) II. 1-4 hr. PR: MATH 3 or 141, Phys. 1 and 2 or consent of department chairperson. Properties of excitable tissues (nerve and muscle), synaptic transmission, reflexes and central nervous system function, and behavior. 1-3 lec., 1 conf.

350. *Graduate Physiology 1*. (For graduate students in the Health Sciences Center's basic sciences departments and a limited number of other regular full-time graduate students.) I 6 hr. PR: Calculus, college physics, organic chemistry, biology, and consent of department chairperson. Analysis of basic facts and concepts relating to cellular processes, organ systems, and their control.

351. *Graduate Physiology 2*. (For graduate students in the Health Sciences Center's basic sciences departments and a limited number of other regular full-time graduate students.) II 6 hr. PR: PHYS 344 or 350 and consent of department chairperson. Continuation of PHYS 350.

399. *Special Topics*. I, II, S. 1-4 hr. PR: Consent. Assigned study to designed to develop research skills.

444. *Graduate Seminar*. I, II. 2 hr. PR: Graduate standing and consent. (Graded S/U.)

490. *Teaching Practicum*. I, II. 1-3 hr. PR: Consent. Supervised practices in college teaching of physiology. (Graded as S or U.)

491. *Advanced Physiology*. I, II, S. 1-15 hr. PR: Consent. Lecture-conference in; cellular physiology, neurophysiology, circulation, respiration, acid-base and renal physiology, digestion and energy metabolism, and endocrinology. 3 lec., 3 conf.

497. *Research in Physiology*. I, II, S. 1-15 hr.

498. *Thesis*. I, II, S. 2-4 hr. PR: Consent. (Graded as S or U.)

499. *Graduate Colloquium*. I, II. 1 hr. PR: Consent. (Graded as S or U.)

Surgery (SURG)

341. *Clinical Clerkship in Surgery*. (Third Year.) CR. Required of third-year medical students. Clinical clerks are assigned responsibility for hospitalized surgical patients under supervision of house staff and attending surgeons. Students are an integral part of the team providing diagnostic and treatment services and are expected to take histories, perform physical examinations, and participate in ward and laboratory procedures. A course of surgical lectures, designed to outline surgical core curriculum, is given concurrently. The student is expected to attend the daily rounds and conferences arranged by the department.

399. *Selected Experiences in Surgery*. (Fourth Year.) (See Conjoined Courses.)

School of Nursing

Nursing (NSG)

(For Nursing Majors Only)

10. *Health and the Caring Professions*. II. S. 3 hr. Health promotion and risk reduction; data collection; cultural diversity; values that contribute to health; interpersonal communication in promoting professional relationships; CPR; First Aid. (2 hr. lec., 1 hr. lab.)

21. *Human Responses 1*. I. 2 hr. PR: NSG 10 and Soph. standing or consent; computer technology. Human responses that promote health throughout the life span; individual health assessment.

23. *Seminar I: Professional Role Development*. I. 2 hr. PR: NSG 10, Soph. standing in NSG or consent. Characteristics of self in role transition; values and beliefs; personal and professional behaviors in nursing care.

25. *Nursing Interventions 1*. I. 4 hr. Conc.: NSG 21; Soph. standing or consent. Critical thinking in application of the nursing process in individuals with altered mobility, comfort, or potential infection; health protection, promotion and maintenance interventions.

41. *Human Responses 2*. II. 2 hr. PR: NSG 25; Conc.: NSG 45. Enhances student understanding of human responses to minor deviations in health throughout the life span; professional role in health restoration; family health assessment.

43. *Seminar II: Professional Role Development*. II. 2 hr. PR: NSG 23. Emphasis on developing caring behaviors through examination of issues related to moral/ethical integrity; values, culture, and family.

45. *Nursing Interventions 2*. II. 4 hr. PR: NSG 25. Critical thinking in the application of the nursing process to individuals with minor deviations in health protection, health protection, health restoration, and health promotion/maintenance.

61. *Health Assessment*. S. 3 hr. PR: NSG 25 or consent. Comprehensive, in-depth assessment of the client's health status, health patterns, physical examination and health history. Interviewing techniques including taped interactions and accurate recording of data for clients across the life span.

100. *Basic Concepts of Professional Nursing*. I. 4 hr. PR: West Virginia R.N. licensure or consent. Concepts and principles related to the professional nurse role. Focuses on the nurse role and role transition plus concepts in the School of Nursing curriculum.

101. *Transitional Practicum*. I. 2 hr. Conc.: NSG 100. Selected clinical experiences designed to help students identify strengths and remedy weaknesses in applying professional nursing concepts to client care. (Graded as Pass- Fail.)

131. *Multiple System Dysfunction*. I, II. 2 hr. PR: NSG 61 or consent; Conc. NSG 135. Human response to multiple system dysfunction. Professional role in complex physiological health restoration.

133. *Seminar III: Professional Role Development*. I. 2 hr. PR: NSG 43 or consent. Managing individual/family/group systems. Focus on ethical decision making in health care situations.

135. *Nursing Interventions 3*. I, II. 5 hr. PR: NSG 61 or consent; Conc: NSG 131. Advanced physiological assessment and independent nursing interventions that promote health restoration. Advanced collaborative nursing activities.

136. *Alterations in Physical Health*. I, II. 3 hr. PR: PSIO 141, Conc: NSG 131, 135. Deviations in normal physiological functioning and physical compensation mechanisms; focus is on identification of physical changes and nursing support of normal physiological responses.
151. *Psychosocial Dysfunction*. I, II. 2 hr. PR: NSG 61 or consent; Conc: NSG 155. Human response to multiple system dysfunction; professionals role in complex psychosocial health restoration.
153. *Seminar IV: Professional Role Development*. II. 2 hr. PR: NSG 133 or consent. Communication skills within the multidisciplinary team; collaborative roles and team dynamics.
155. *Nursing Interventions 4*. I, II. 5 hr. PR: NSG 61 or consent. Advanced psychosocial assessment and independent nursing interventions to promote health restoration; advanced collaborative nursing activities.
156. *Alterations in Psychosocial Health*. I, II. 3 hr. PR: PSYC 141 or consent, conc: NSG 151, 155. Normal psychosocial functions change as a result of altered health; integration of developmental changes and preventive aspects of health.
221. *System Responses to Physiological Dysfunction*. I, II. 3 hr. PR: Senior standing in NSG or consent. Conc: NSG 225. Emphasis on support for vulnerable individual/family/group responses to acute life threatening situations; nursing role in providing care to unstable, individuals/families/groups.
223. *Seminar V: Professional Role Development*. I. 2 hr. PR: NSG 153 or consent. The professional's role in creating and managing the health care milieu; the nurse manager role and interventions in support of the client/family experiencing acute or long term health problems.
225. *Nursing Interventions 5*. I, II. 6 hr. PR: Senior standing in Nursing or consent. Conc: NSG 221. Professional nursing role in supporting human responses to acute, life-threatening situations involving identified vulnerable populations; therapeutic nursing interventions specific to aid human responses of families of individuals with physiologic instability.
241. *Community Response to Health Promotion*. I, II. 3 hr. PR: Senior standing in Nursing or consent. Conc: NSG 245. Community Health Nursing processes, emphasis on the professional nursing role in the assessment of community health needs and identification of health action potential.
243. *Seminar VI: Professional Role Development*. I, II. 2 hr. PR: NSG 223 or consent. Emphasis on professional nursing role in health promotion/risk reduction in groups/communities of vulnerable populations. Multidisciplinary/team approaches to problem solving in community health.
245. *Nursing Interventions 6*. I, II. 6 hr. PR: Senior standing in NSG or consent. Collaborative role of the nurse in assisting communities to develop and implement plans for health promotion/risk reduction across the life span; vulnerable populations.
276. *Introduction to Nursing Research*. I, II. 3 hr. PR: Stat 101 or consent. Theory, concepts and methods of the research process intended to provide a basic understanding that is necessary for intelligent consumership of research findings.
291. *Special Topics*. I, II, S. 1-6 hr. Investigation of topics not covered in regularly scheduled courses.

370. *Theories in Nursing*. I. 3 hr. PR: BSN, Consent. Introduction to the structure and function of extant theories in nursing as a basis for practice and research. Students evaluate theories, concepts, and research applicable to health promotion.

373. *Research Process and Methods in Nursing*. II. 3 hr. PR: NSG 370. PR or Conc: Graduate level statistics. Emphasizes understanding and critiques of research applicable to nursing. Theoretical rationale and appropriate methods to address research questions pertaining to health promotion with focal populations are targeted.

375. *Health Promotion*. II. 3 hr. PR: NSG 370**. Focus is on understanding health promotion, maintenance, and restoration through analysis of applicable theories, models, concepts and research. Students develop a conceptual model for nursing practice that includes assumptions, propositions, interventions and evaluation.

376. *Health Policy*. II. S. 3 hr. PR: NSG 370. Focus is on social, political, technological, ethical and economic dynamics which shape the formal and information systems of health care delivery. Impact of social policy on rural environments, nursing practice and health promotion is emphasized.

378. *Health Promotion Practice 1*. I. 6 hr. PR: NSG 373 and 375. Theoretical constructs of health, leadership, change and organization structure are included in addressing family and community. Practicum component supports the application and evaluation of a conceptually-based advanced nursing practice. Practicum and seminar.

380. *Health Promotion Practice 2*. II. 6 hr. PR: NSG 378. Supervised practicum and seminar are designed to facilitate the student's application of theoretical content related to the focal population of the elderly, children, parents and babies.

391. *Advanced Study*. I, II, S. 1-3 hr. PR: Graduate standing; consent. In depth study of topics related to current issues in primary health care. Study may be independent or through specially scheduled seminars.

397. *Research*. I, II, S. 1-15 hr. PR: NSG 373; PR or Conc: NSG 378. Refinement and implementation of research proposal to meet requirements for a master's paper.

491. *Advanced Study*. I, II, S. 1-3 hr. PR: Consent. Post master's standing. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

497. *Research*. I, II, S. 1-15. PR: Consent. Post master's standing.

** The introductory health assessment requirement, which is a prerequisite for regular admission to the MSN program, must be completed before enrolling in NSG 375.

School of Pharmacy

Professional, Graduate, and Undergraduate Courses

Pharmacy (PHAR)

200. *Introduction to Pharmaceutical Systems*. I. 4 hr. PR: First-year standing in pharmacy or consent. Pharmaceutical calculations, dosage forms, dispensing techniques, and an overview of pharmacy practice and career opportunities.

201. *Concepts in Pharmaceutics 1*. I. 3 hr. PR: First-year standing in pharmacy or consent. Concepts of a pharmaceutical systems with emphasis on the physicochemical principles in formulations and dosage forms, primarily solutions and their calculations.

202. *Concepts in Pharmaceutics 2*. II. 4 hr. PR: PHAR 201 or consent. Special dosage forms, quality control, drug analysis, design and manufacture of pharmaceutical formulations and their conformity with Food and Drug Administration (FDA) regulations, especially good manufacturing practices.

203. *Pharmacokinetics and Biopharmaceutics*. I. 4 hr. PR: PHAR 202 or consent. Fundamentals of biopharmaceutics/pharmacokinetics are presented. The kinetic, therapeutic, and dosage formulation-related aspects of drug absorption and disposition are discussed. Laboratories emphasize theoretical and practical problems in pharmacokinetics and bioavailability.

205. *Pharmaceutical Aspects of Pharmacy Practice*. II. 4 hr. PR: Second-year standing in pharmacy or consent. Development of professional competence in the practice of pharmacy. Scientific principles underlying extemporaneous prescription compounding are applied to prescription problems. Problems arising in the dispensing of precompounded pharmaceuticals are studied.

211. *Sterile Products*. I, II. 3 hr. PR: Third-year standing in pharmacy. Broad view of the technology involved in sterilization and in the preparation and administration of sterile dosage forms. (Includes lab component.).

212. *Non-Prescription Drugs*. II. 3 hr. PR: Second-year standing in pharmacy. Basis for self-medication, the therapeutic rationale for nonprescription drugs, and ethical principles as they apply to nonprescription drugs and appliances.

213. *Industrial Pharmacy*. I. 3-4 hr. PR: PHAR 202. Major aspects and principles of dosage form development and manufacture. Structure of industry and government influences. Laboratory experience in manufacturing and development techniques.

214. *Cosmetic Formulation*. II. 3 hr. PR: PHAR 202. Introduction to principles of cosmetic formulations, including review of anatomy/physiology of skin. Laboratory exposes students to practical aspects of processing the most popular cosmetic products.

215. *Physical Pharmacy*. II. 3 hr. PR: Third-year standing in pharmacy or consent. Designed to illustrate the special application of physicochemical properties of materials to pharmaceutical and physiological systems. Especially useful in delineating formulation considerations affecting the stability of complex systems.

216. *Hospital Pharmacy and Administration*. I. 3 hr. PR: Enrollment in the School of Pharmacy and consent. Basic concepts of the organization, management, and services of hospitals and pharmacist's role in the modern hospital. Emphasis on principles of hospital pharmacy administration and practice.

227. *The Pharmacist's Social Environment*. I. 2 hr. External factors which influence the practice of the pharmacist over which the pharmacist has little or no control, with emphasis on the psychosocial aspects and distributive systems.
228. *Pharmacy Practice and Legal Environment*. II. 3 hr. PR: Second year standing or consent. Legal and ethical considerations that influence the practice of the pharmacist.
229. *Managerial Aspects of Pharmacy Practice*. I. 3 hr. PR: PHAR 227 or consent. Emphasis on decision making, planning, organization, personnel, information systems, risk factors, and financial aspects.
230. *Professional Aspects of Pharmacy Practice*. II. 3 hr. PR: PHAR 229 or consent. Emphasis on patient communications, patient profiles and charges, and present and future role of pharmacist in the provision of pharmaceutical care.
231. *The Pharmacist Proprietor*. I, 3 hr. PR: Senior standing in pharmacy. Pharmacist as a business owner; management theories and principles applied to the efficient operation of pharmacy.
232. *Social Aspects of Pharmacy*. II. 3 hr. Psychosocial aspects of pharmacists and patients in health care setting. Behavioral science factors which affect whether, why, or how medications and pharmaceutical services are used; role of pharmacist in health care.
233. *Current Developments in Pharmacy Practice*. II. 3 hr. PR: Third-professional-year standing, or second-professional-year by consent. Examines issues of current importance to contemporary pharmacy practice such as prepaid health insurance, peer standards review and organizations, degree and title granting, competency based relicensure and continuing education, and technicians' roles.
241. *Fundamentals of Pathophysiology*. II. 4 hr. PR: First-year standing in pharmacy or consent. Student is introduced to various disease states with emphasis on the pathophysiology underlying those diseases amenable to drug therapy.
245. *Pharmacotherapeutics 1*. I. 3 hr. PR: Second-year standing in pharmacy or consent. The application of pharmacodynamic, pharmacokinetic, and pharmaceutical principles in the treatment, diagnosis, and prevention of disease states.
246. *Pharmacotherapeutics 2*. II. 3 hr. PR: PHAR 245 or consent. A continuation of PHAR 245.
247. *Clinical Pharmacokinetics*. 3 hr. PR: PHAR 203 or consent. The application of pharmacokinetic principles to the therapeutic management of disease states. Includes effects of altered physiological conditions and diseases on drug kinetics and dose individualization techniques for specific drugs. (3 hr. lec.)
249. *Drugs and Medicines*. I. 3 hr. (Not intended for pharmacy students.) PR: General biology or consent. A course intended to introduce the non-health professional student to information about drugs and pharmaceutical preparations to include their source, administration, action, use and abuse.
250. *Ambulatory Care Clerkship*. I, II, S. 4 hr. PR: Third-professional-year standing. A course giving extensive experience in the practice of pharmacy, emphasizing the pharmacist's relationship to ambulatory patients.

251. *Medical Team Clerkship*. I, II, S. 4 hr. PR: Third-professional-year standing. Students will participate on a health care team in an inpatient setting. Emphasis will be on pharmaceutical and medication counseling, role of drug therapies in patient care, patient drug histories, and practitioner-patient communications.
252. *Institutional Care Clerkship*. I, II, S. 4 hr. PR: Third-professional-year standing. Extensive experience will be gained in the practice of pharmacy in institutional centers (primarily hospitals) with emphasis on the pharmacist's relationship with hospitalized patients.
253. *Elective Clerkship*. I, II, S. 4 hr. PR: Third-professional-year standing. Students will elect to repeat a clerkship (PHAR 250, 251, 252). Emphasis will be on the further development of skills in the various practice areas of pharmacy.
255. *Introduction to Drug Literature*. II. 2 hr. PR: Second year pharmacy standing or consent. Reference sources available to meet the drug information needs of pharmacists and other health practitioners; methods for critically evaluating published clinical drug studies.
256. *Advanced Pharmacotherapeutics*. I. 3 hr. PR: PHAR 246 or equiv., and consent. The integration of pharmacological-therapeutic concepts in the study of treatment modalities and problems which may be encountered by the pharmacist in drug management of selected disease states.
265. *Chemical Abuse*. I. 1 hr. Problems of chemical abuse; the psychosocial, pharmacological, and physiological nature of chemical abuse; and ramifications of chemical abuse and impairment by the professional pharmacist.
266. *Principles of Clinical Pharmacy Practice*. II. 2 hr. PR: Second year pharmacy standing or consent. Introduction to principles of clinical pharmacy; discussion of selected diseases and their treatment in a case-study format.
270. *Fundamentals of Medicinal Chemistry 1*. II. 3 hr. PR: First-year standing in pharmacy or consent. A relationship of the chemistry, structure, and physicochemical properties of drugs to their pharmacodynamic effects. Major portion devoted to basic principles followed by discussion in pharmacological classes.
271. *Fundamentals of Medicinal Chemistry 2*. I. 3 hr. PR: PHAR 270. Continuation of PHAR 270.
272. *Pharmacochemical Concepts of Drug Design*. II. 3 hr. PR: PHAR 271 or consent. Selected concepts of chemical approaches to the study of pharmacological and toxicological actions of drugs and their application to drug design.
276. *Pharmaceutical Quality Control*. II. 3 hr. PR: Second-year standing in pharmacy. Basic scientific principles in quality control of drugs and dosage forms, with particular attention to newer analytical techniques.
280. *Drugs, Nutrients, and Health*. II. 3 hr. The course is intended to provide the student with fundamental concepts and principles of nutrition science.
283. *History of Pharmacy*. I or II. 2 hr. Gives the student a deeper appreciation of the background of pharmacy and its development from ancient times to present.
284. *Public Health*. I or II. 2 hr. Measures required for the application of the pharmacist's knowledge, skill, and facilities to the promotion of the health and welfare of the public in cooperation with public and private health agencies.

285. *Nuclear Pharmacy*. I. 3 hr. PR: Second-year standing in pharmacy or consent. Production and properties of radiation; detection of radiation; nuclear medicine instrumentation; the formulation, production, quality control, and use of radioactive materials and radiopharmaceuticals used in diagnosis and treatment.
287. *Seminar in Pharmaceutical Sciences*. I, II. 1-3 hr. PR: Consent. Presentation and discussion of special topics in pharmaceutical sciences.
289. *Pharmaceutical Investigations*. I, II, S 1-3 hr. PR: Consent. Original investigation in pharmaceuticals, medicinal chemistry, pharmacology, pharmacy administration, or clinical pharmacy.
290. *Special Topics*. I, II. 2-4 hr.
298. *Clinical Pharmacy Specialties*. I, II, S. 3 hr. PR: PHAR 250, 251, 252, 253, and consent. Clinical pharmacy elective rotation on a selected medical specialty service. Rotations will be arranged upon approval by clinical pharmacy instructor and respective medical chiefs.
300. *Industrial Pharmacy*. I. 4 hr. Major aspects and principles of dosage form development and manufacture. Structure of industry and government influences. Laboratory experiences in manufacturing and development techniques.
301. *Advanced Biopharmaceutics*. I or II. 3 hr. Concepts of biopharmaceutics and pharmacokinetics in relation to the design and evaluation of dosage forms and determination of rational dosage regimens in health and disease.
302. *Advanced Pharmaceutics*. I or II. 3 hr. Physicochemical and biopharmaceutical principles involved in disperse systems (liquid, semi-solid, and solid) which function as dosage forms. Considerations of properties of solid dispersions, micromeritics, diffusion of liquid dispersions, interfacial phenomena, emulsification, suspensions, prolonged action medication, etc.
314. *Cosmetic Formulation*. II. 3 hr. PR: PHAR 203. Introduction to principles and basic considerations of cosmetic formulations, including review of anatomy/physiology of skin. Laboratory exposes students to practical aspects of processing the most popular cosmetic products.
315. *Physical Pharmacy*. I or II. 3 hr. Designed to illustrate the special application of physicochemical properties of materials to pharmaceutical and physiological systems. Especially useful in delineating formulation considerations affecting the stability of complex systems.
320. *Drug Regulation and Control*. I or II. 3 hr. Legislation affecting the development, introduction, control, and utilization of drugs in the American economy.
321. *Drug Distribution Systems*. I or II. 3 hr. Detailed study and analysis of drug distribution in institutional environments.
323. *Economics of the Pharmaceutical Industry*. I or II. 3 hr. History, background, and formation of major drug industries. Oligopolistic practices, mergers, combines, costs of research, and production.
326. *Disease Processes and Clinical Therapeutics 1*. I, II. 7 hrs. PR: Admission to the Pharm. D. program or consent. Pharmacotherapeutics and therapeutic decision-making.

327. *Disease Processes and Clinical Therapeutics 2*. II, 7 hr. PR: Admission to the Pharm. D. program or consent. Pharmacotherapeutic decision making; a continuation of PHAR 326.

329. *Advanced Clinical Pharmacokinetics*. II, 3 hr. PR: Admission to the Pharm. D. program or consent. Emphasis on the interpretation and use of therapeutic drug concentrations in patient management.

330. *Drug Information Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; enhancement of knowledge and skill in drug information retrieval and dissemination and as pharmacotherapy consultants.

331. *Internal Medicine Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; emphasis on selection, utilization, and monitoring of drug therapy patient and health care practitioner interactions.

332. *Family Medicine Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship providing intensive experience in clinical pharmacy services to inpatients and ambulatory patients of a family practice center.

337. *Poison Information and Management Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in clinical toxicology; assessment and treatment of the poisoning victim.

339. *Adult Medicine Specialty Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship, emphasis on selection, utilization, and monitoring of drug therapy: patient and health care practitioner interactions.

340. *Pediatrics Clerkship*. I, II, S. 4 hr. Second year standing in Pharm. D. program or consent. Advanced clerkship in pediatrics with emphasis on appropriate selection, utilization and monitoring of drug therapy and patient and health care practitioner interaction.

341. *Behavioral Medicine/Psychiatry Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; emphasis on selection, utilization, and monitoring of drug therapy; patient and health care practitioner interactions.

342. *Geriatrics Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; emphasis on selection, utilization, and monitoring of drug therapy; patient and health care practitioner interactions.

343. *Hospital Pharmacy Administration Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; emphasis on pharmaceutical care, its planning and implementation and legal and regulatory requirements.

344. *Preceptorship Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship preceptor to undergraduate pharmacy students in a clinical rotation.

345. *Elective Clerkship 1*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.

346. *Elective Clerkship 2*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.

347. *Elective Clerkship 3*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.
348. *Elective Clerkship 4*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.
370. *The Synthesis of Drugs*. I, II, S. 3 hr. PR: CHEM 332 and consent. A survey of the approaches employed in the synthesis of a variety of examples of pharmacologically useful agents. Emphasis is placed on retrosynthetic analysis of target molecules and the application of synthetic procedures to multi-step syntheses.
375. *Advanced Pharmaceutical Analysis*. I or II. 3 hr. Spectroscopic methods of analysis with emphasis on their applications in pharmaceutical problems and in biological sciences.
376. *Advanced Pharmaceutical Analysis*. I or II. 3 hr. Continuation of PHCH 375, with emphasis on electro-analytical methods and preparation of samples from pharmaceutical dosage forms and from biological materials.
377. *Advanced Pharmaceutical Analysis*. I or II. 3 hr. Physical-chemical principles involved in methods development. A special problem is assigned as an integral part of the course.
390. *Special Topics*. I, II, S. 1-4 hr.
391. *Seminar in Pharmaceutical Sciences*. I, II. 1 hr. PR: Consent. A multidisciplinary weekly presentation and discussion of special topics and research in the pharmaceutical sciences. (Weekly attendance is required and grading is on an S/U basis only.)
396. *Special Problems in Pharmaceutical Sciences*. I, II, S. 1-3 hr. Where special interest is shown by the student in an area other than of the student's thesis research, a faculty member will supervise individual study and research.
484. *Special Seminar*. I, II, S. 1-6 hr. For use by disciplines in the pharmaceutical sciences wishing to have graduate students and faculty participate in seminars and group discussions on specialized or technical topics at the advanced level.
490. *Teaching Practicum*. I, II. 1-3 hr. PR: Graduate standing and consent. Supervised practices in college teaching of pharmacy.
491. *Advanced Study*. I, II, S. 1-6 hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.
496. *Graduate Seminar*. I, II. 1 hr. PR: Consent. Formal presentation by graduate students to assembled graduate faculty and students of research or special topics approved by adviser. Title to be presented at start of semester. Required at least once annually. (Grading is S/U.)
497. *Research*. I, II. 1-15 hr.
498. *Thesis*. I, II, S. 2-4 hr. PR: Consent.

Health Sciences Center

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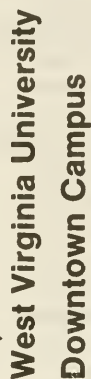
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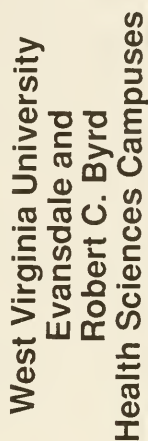
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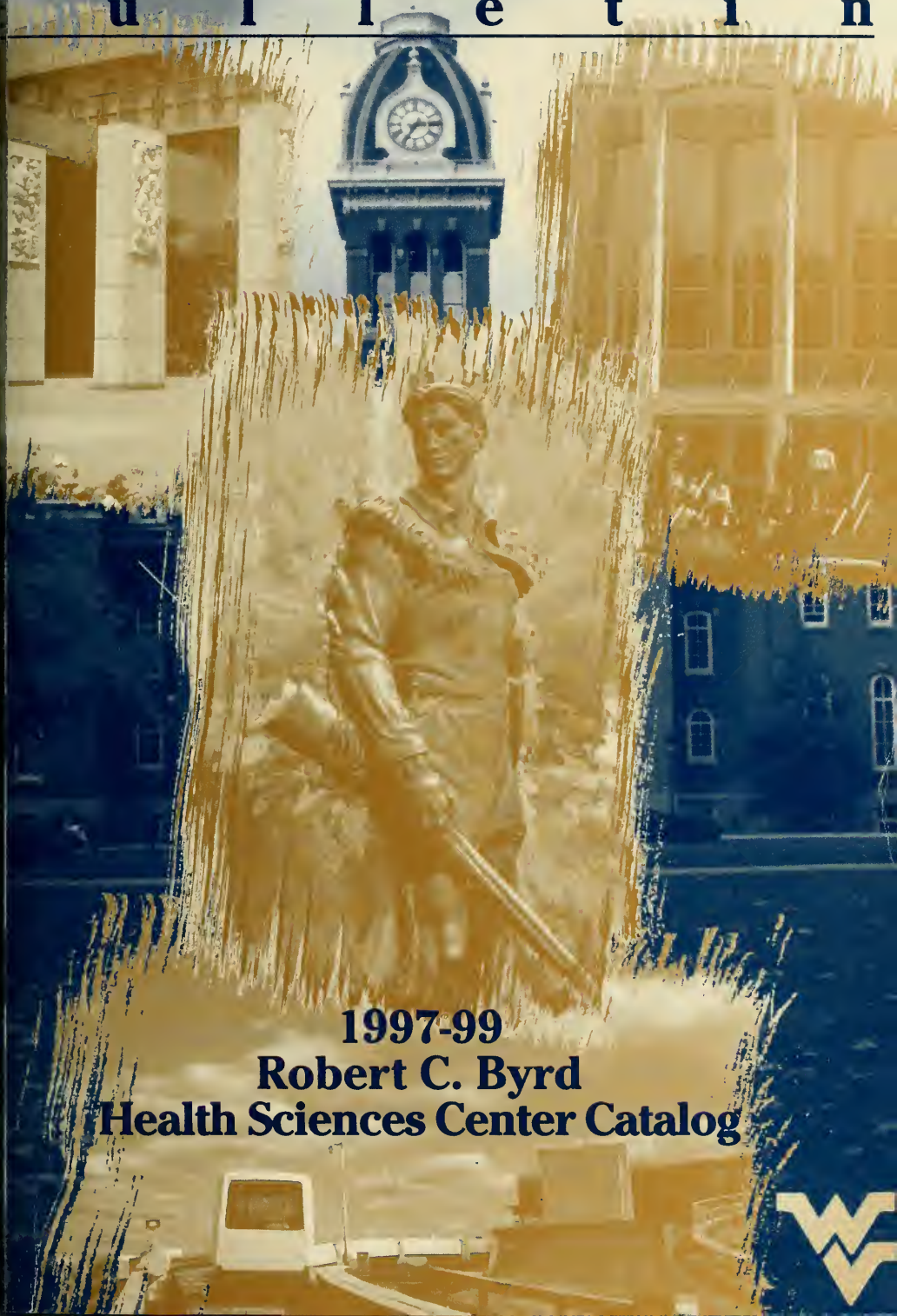
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**West Virginia University Calendar
1997-98**

FIRST SEMESTER

Wednesday, Thursday, Friday, August 13, 14, 15	New student orientation
Friday, August 15	General registration
Monday, August 18	First day of classes
Monday, August 18	Late registration fee in effect for all students
Friday, August 22	Last day to register, add courses, change sections, change pass/fail & audit
Monday, September 1	Labor Day recess
Thursday, October 2	Rosh Hashannah (day of special concern)
Friday, October 3	Mid-semester
Tuesday, October 7	Mid-semester reports due
Saturday, Oct. 11	Yom Kippur (day of special concern)
Friday, October 24	Last day to drop a class
Saturday, Nov. 22 through Sunday, Nov. 30	Thanksgiving recess
Thursday, December 4	Last day to withdraw from University
Friday, December 5	Last day of classes
Friday, December 5	December convocation
Monday, Dec. 8 through Saturday, Dec. 13	Final examinations week
Sunday, Dec. 14 through Wednesday, Jan. 7 incl.	Christmas recess
Friday, December 29	Degree-conferring date (no ceremonies)

SECOND SEMESTER

Wednesday, Thursday, Friday, January 7, 8, 9	New student orientation
Friday, January 9	General registration
Monday, January 12	First day of classes
Monday, January 12	Late registration fee in effect for all students
Friday, January 16	Last day to register, add courses, change sections, change pass/fail & audit
Monday, January 19	Martin Luther King's birthday recess
Saturday, February 7 (Not a Holiday)	West Virginia University Day
Friday, February 27	Mid-semester
Tuesday, March 3	Mid-semester reports due
Saturday, March 7 thru Sunday, March 15	Spring recess
Friday, March 27	Last day to drop a class
Friday, Saturday, Sunday, April 3, 4, 5	Weekend of honors
Friday, April 10	Friday before Easter recess
Saturday, April 11	Passover (day of special concern)
Thursday, April 30	Last day to withdraw from university
Friday, May 1	Last day of classes
Monday, May 4 thru Saturday, May 9	Final examination week
Monday, May 11	Grade reports for all graduates due in dean's office
Monday, May 11	Dean's reports on graduates due in ARC
Tuesday, May 12	Election Day recess
Saturday, May 16	Alumni Day
Sunday, May 17	Commencement

FIRST SEMESTER

Wednesday, Thursday, Friday, August 19, 20, 21	New student orientation
Friday, August 21	General registration
Monday, August 24	First day of classes
Monday, August 24	Late registration fee in effect for all students
Friday, August 28	Last day to register, add courses, change sections, change pass/fail and audit
Monday, September 7	Labor day recess
Monday, September 21	Rosh Hashannah (day of special concern)
Wednesday, September 30	Yom Kippur (day of special concern)
Friday, October 9	Mid-semester
Tuesday, October 13	Mid-semester reports due
Friday, October 30	Last day to drop a class
Tuesday, November 3	Election Day recess
Saturday, Nov 21 thru Sunday, Nov 29	Thanksgiving recess
Thursday, December 10	Last day to withdraw from university
Friday, December 11	Last day of classes
Friday, December 11	December convocation
Monday, Dec 14 thru Saturday, Dec 19	Final examination week
Sunday, Dec 20 thru Tuesday, Jan 5, encl	Christmas recess
Tuesday, December 29	Degree conferring date (no ceremonies)

SECOND SEMESTER

Wednesday, Thursday, Friday, January 6, 7, 8	New student orientation
Friday, January 8	General registration
Monday, January 11	First day of classes
Monday, January 11	Late registration fee in effect for all students
Friday, January 15	Last day to register, add courses, change sections, change pass/fail and audit
Monday, January 18	Martin Luther King's birthday recess
Sunday, February 7 (not a holiday)	West Virginia University Day
Friday, February 26	Mid-semester
Tuesday, March 2	Mid-semester reports due
Saturday, March 6 thru Sunday, March 14	Spring recess
Friday, March 26	Last day to drop a class
Thursday, April 1	Passover (day of special concern)
Friday, April 2	Friday before Easter recess
Friday, Saturday, Sunday, April 16, 17, 18	Weekend of honors
Thursday, April 29	Last day to withdraw from university
Friday, April 30	Last day of classes
Monday, May 3 thru Saturday, May 8	Final examination week
Monday, May 10	Grade reports for all graduates due in dean's office
Tuesday, May 11	Dean's reports on graduates due in ARC
Saturday, May 15	Alumni day
Sunday, May 16	Commencement

1997-98
SUMMER SESSION I

Wednesday, May 20 Registration
Wednesday, May 20 First day of classes
Thursday, May 21 Late registration fee in effect for first six week session
for all students
Monday, May 25 Memorial Day recess
Tuesday, May 26 Last day to register, last day to add courses or make section changes
Friday, June 12 Last day to drop a class for first six week session
Monday, June 29 Last day to withdraw from first six week session
Tuesday, June 30 Last day of classes for first six week session
Tuesday, June 30 Final exam for first six week session

SUMMER SESSION II

SUMMER SESSION II

Wednesday, July 1	Registration
Wednesday, July 1	First day of classes
Thursday, July 2..	Late registration fee in effect for second six week session for all students
Friday, July 3	Independence Day recess
Tuesday, July 7	Last day to register for second six week session and last day to add courses or make section changes in second six week session
Friday, July 24	Last day to drop a class for second six week session
Thursday, August 6	Last day to withdraw from second six week session
Friday, August 7	Last day of classes for second six week session
Friday, August 7	Final exam for second six week session
Friday, August 14	Degree conferring date (no ceremonies)

**1998-99
SUMMER SESSION I**

Thursday, May 20	Registration
Thursday, May 20	First day of classes
Friday, May 21	Late registration fee in effect for first six week session for all students
Tuesday, May 25	Last day to register, last day to add courses or make section changes
Monday, May 31	Memorial Day recess
Friday, June 11	Last day to drop a class for first six week session
Tuesday, June 29	Last day to withdraw from first six week session
Wednesday, June 30	Last day of classes for first six week session
Wednesday, June 30	Final exam for first six week session

SUMMER SESSION II

SUMMER SESSION II

Thursday, July 1	Registration
Thursday, July 1	first day of classes
Friday, July 2	Late registration fee in effect for second six week session for all students
Monday, July 5	Independence Day recess
Wednesday, July 7	Last day to register, last day to add courses or make section changes
Friday, July 23	Last day to drop a class for second six week session
Monday, August 9	Last day to withdraw from second six week session
Tuesday, August 10	Last day of classes for second six week session
Tuesday, August 10	Final exam for second six week session
Friday, August 20	Degree conferring day (no ceremonies)

Robert C. Byrd Health Sciences Center of West Virginia University

West Virginia University's Schools of Dentistry, Medicine, Nursing, and Pharmacy at the Health Sciences Center offer a comprehensive range of undergraduate, graduate, and professional degrees in health care and biosciences. The 29 degree programs offered by the Health Sciences Center provide West Virginia with a strong group of professionals prepared to meet the varied health care needs of the state. The more than 10,000 alumni of WVU Health Sciences Center programs include about one-third of the state's practicing physicians, two-thirds of its dentists, three-quarters of its pharmacists, and hundreds of nurses, medical and dental technologists, physical therapists, and other health professionals.

A unique combination of state and federal support, charitable contributions from individuals and foundations, and investment by private corporations has allowed the Health Sciences Center to build an unequalled environment for health education. The Health Sciences Center includes three hospitals, a cancer center, and a medical and dental office building. All were built since 1986 and were designed to meet the needs of patient care, education, and clinical research. The WVU Health Sciences Center also includes medical divisions in Charleston and Wheeling and relationships with hospitals and physicians in rural areas of the state. These facilities offer students the opportunity to learn their profession in a setting that realistically reflects the conditions they will encounter after graduation.

Clinical Education Facilities

The West Virginia University Health Sciences Center includes a diverse group of health care facilities, providing a training ground for patient care and research for students in the health professions. West Virginia University Hospitals, the Physician Office Center, the Mary Babb Randolph Cancer Center, Chestnut Ridge Psychiatric Hospital, Southview Regional Rehabilitation Hospital, and the National Institute of Occupational Safety and Health (NIOSH) are modern facilities that advance medical research and accommodate the demands of contemporary medical, dental, nursing, and pharmacy care.

WVU Hospitals entered a new era in 1988 with the opening of a 376-bed tertiary teaching facility—Ruby Memorial, the primary teaching hospital for the Health Sciences Center. It is equipped and staffed to provide the most comprehensive and advanced care available in West Virginia, thus making it a superb clinical education site for students. Ruby also houses the Jon Michael Moore Trauma Center and WVU Children's Hospital with their specialized care units.

The Physician Office Center, the Health Sciences Center's outpatient facility for education and patient care, accommodates the largest multi-specialty group practice in West Virginia, with 60 primary and specialty care areas. Dental facilities, the Eye Center, and the Outpatient Pharmacy are integral parts of the Physician Office Center.

Chestnut Ridge Hospital is a 70-bed private psychiatric hospital on the Health Sciences Center campus. It is staffed clinically by faculty from the School of Medicine and is the focal point of education in the behavioral and psychiatric sciences.

Southview Regional Rehabilitation Hospital provides unique educational opportunities for students in neurological disease, trauma rehabilitation, and physical and occupational therapy. Many WVU students experience part of their clinical training at the Charleston Division of the Health Sciences Center, which is affiliated with Charleston Area Medical Center. In addition, WVU students train at off-campus sites where they learn the demands of rural health care firsthand.

The School of Dentistry dental clinic accepts patients who have dental problems of teaching value. Faculty members closely supervise those students assigned to clinic patients. The students get invaluable experience through work at the clinic, and several thousand patients receive a much needed service.

University Health Service

When you enroll at the University, one of the charges you pay is the health service fee. This fee allows you to use the primary medical care provided by the University Health Service. The service, located on the ground floor of Health Sciences South, includes medical consultation and treatment. To use the service, you must present your current student ID and pay a co-payment.

If you require more specialized care, the Health Service may refer you to an outpatient clinic at the Physician Office Center. In this case, you are responsible for registration fees, doctor's fees, x-ray or lab fees, etc. The University Health Service publishes a brochure that details the services included in the health service fee and outlines services that are not provided.

The emergency department is available to you when the University Health Service is closed. However, all costs incurred at the emergency department are your responsibility. Since most insurance policies cover emergency department costs only when a true emergency exists, we advise you to use this service responsibly and maturely. An insurance plan is available to you to cover inpatient and outpatient services beyond the primary care covered by the health fee. We urge you to purchase this or a similar coverage as all students of the Health Sciences Center *must* have health insurance.

Library

The Health Sciences Library has a collection of more than 205,000 volumes and extensive holdings of audiovisual materials. It currently receives more than 2400 journals. The library primarily serves the Schools of Dentistry, Medicine, Nursing, and Pharmacy, graduate students in the basic sciences, and the West Virginia University Hospital System. It also supports the biomedical information needs of the University and of health professionals across the state. As West Virginia's resource library in the National Library of Medicine's regional medical library network, the Health Sciences Library operates an efficient interlibrary loan service for University staff and students and for West Virginia's hospitals and clinicians. Other services include on-line searches of data bases available through the National Library of Medicine, Bibliographical Retrieval Services, Chemical Abstracts Services, OCLC, and Wilsonline. Also available are computer facilities permitting students, faculty, and staff to perform their own computer searches. A computerized West Virginia union list of periodicals is maintained, and installation of an integrated library system should soon be under way. The library is open 98 hours a week for most of the year; regular hours and variations are posted at the entrance.

Health Sciences Programs

Degree Program	Bachelor	Master	Doctoral/ Professional
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School of Dentistry

Dental Hygiene	B.S.	M.S.	
Dentistry			D.D.S.
Dental Specialties		M.S.	

School of Medicine

Anatomy		M.S.	Ph.D.
Biochemistry (Medical)		M.S.	Ph.D.
Community Health Promotion		M.S.	
Exercise Physiology	B.S.	M.S.	
Medical Technology	B.S.	M.S.	
Medicine			M.D.
Microbiology and Immunology		M.S.	Ph.D.
Occupational Therapy		M.S.	
Pharmacology and Toxicology		M.S.	Ph.D.
Physical Therapy	B.S.*		
Physiology (Medical)		M.S.	Ph.D.
Public Health		M.P.H.	

School of Nursing

Nursing	B.S.N.	M.S.N.	
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School of Pharmacy

Pharmaceutical Sciences	M.S.		Ph.D.
Pharmacy	B.S.Pharm.		Pharm. D.

*BS program converts to MS only program, fall, 1997.

Undergraduate and Professional Programs

Commitment to Social Justice

West Virginia University's role as the doctoral degree-granting, research, land-grant university in the state of West Virginia gives the institution a special responsibility as a leader in the area of social justice. The pursuit of truth underlying the University's mission focuses attention on issues of diversity, power, and perspective, so that students, faculty, and staff may study and work in a climate of academic freedom and social responsibility, developing the skills, knowledge, and self-esteem necessary for participation as world citizens.

Equal opportunity is a fundamental goal in a democratic society, and WVU shares the responsibility for achieving that equity. The institution is committed, therefore, to ensuring that all persons, including women; people of color; people with disabilities; gays, lesbians, and bisexuals; veterans; and people of different religions, ages, and international, ethnic, and economic backgrounds benefit from the many opportunities the institution provides.

In keeping with this responsibility, the members of the academic community are expected to demonstrate mutual respect, understanding, and appreciation for all persons; to express that perspective in every dimension of the institution's life and mission; and to work cooperatively, representing not only the interests of their own groups but also those of the wider community.

The importance of West Virginia University's social justice program goes beyond the benefits that accrue to any one person or group, to the strengthening of the University itself and the enhancing of its ability to accomplish the mission with which it has been entrusted by the people of West Virginia.

Admission

To apply for admission to the various schools of the Health Sciences Center, write to Admissions and Records, 1170 Health Sciences North, P. O. Box 9815, Morgantown, WV 26506-9815, and ask for the appropriate application forms.

Space at the HSC is limited, and our applications are numerous. Therefore, we give preference in the admissions process to qualified residents of West Virginia. However, we always consider outstanding nonresident applications. We give most careful consideration to those personal qualifications that reflect your fitness for the study and practice of your chosen profession.

Because we are primarily a group of professional schools and most of our applicants are enrolled in undergraduate studies at a residential college or university, we remind you to include your permanent home address with your request for an application form.

Specific entrance requirements for all Health Sciences programs are detailed in the section pertaining to each program. For information about freshman, transfer, and international admission to West Virginia University, please refer to the undergraduate catalog.

NOTE: During the first semester of your first year at WVU Health Sciences Center, we require that you complete certain prescribed immunization and diagnostic procedures.

Application Fees

Application fees for the Schools of Dentistry and of Medicine are \$45.00. The PharmD application fee is \$30.00. Applications fees for all other Health Sciences Center programs are \$10.00. Application fees must accompany your application form.

When you are accepted into one of our programs you are asked to deposit \$100.00 to make your acceptance official. The deposit for the Dental Hygiene program is \$75.00. These deposits are applied toward your first semester tuition when you enroll.

If you pay your deposit but do not enroll a written request for refund must be postmarked by June 1st for fall admission and December 1st for spring admission.

Academic Advising

When you enter West Virginia University, you are assigned an academic advisor. Your advisor assists you as you prepare your schedule, assigns classes as required by your degree program, and certifies your study list to the Director of Admissions and Records. Your advisor is also expected to give you

advice and sympathetic guidance. You are expected to meet with your advisor to discuss your academic problems.

Students interested in medical technology, nursing, pharmacy, physical therapy, or occupational therapy may be admitted to a preprogram in order to complete entrance requirements for admission to the degree program. If you select one of these pre-programs, you are advised through the University Services Center. You must apply for admission with an undergraduate application.

Second or Multiple Bachelor's Degree

To earn a second baccalaureate degree, you must earn at least 30 credits beyond the requirements for your first degree. You must satisfy all requirements, departmental or otherwise, for the second degree. You cannot receive a second bachelor's degree if you have not met the University's residence requirement. (See "Residence Requirements.")

If you wish to earn two baccalaureate degrees at the same graduation date, then you must satisfactorily complete a minimum of 158 credits and meet all requirements, departmental and otherwise, of both degree programs. You must be admitted to both programs. Furthermore, you must provide the Office of Admissions and Records written proof that you do, in fact, have the approval of both colleges and schools.

Undergraduate Policies

Academic Forgiveness Policy

The academic forgiveness policy allows a second chance to students who were unsuccessful in their initial enrollment in higher education. If a student has not been enrolled at a West Virginia Board of Trustees institution for at least five calendar years and has not been enrolled in any other institution of higher learning during those five years, then the student may be eligible for admission or readmission to WVU under the academic forgiveness policy. In order to determine eligibility, he/she must complete the required form, which is available from the Office of Admissions and Records.

The conditions and rules of the academic forgiveness policy are as follows:

- a. Admission to WVU under the academic forgiveness policy is conditional upon satisfying the above stated non-enrollment period. In addition, a recommendation that the student be admitted under the academic forgiveness policy must be submitted by the dean of the college or school that the student plans to enter, and the recommendation must be approved by the Office of the Vice President for Academic Affairs.
- b. Upon admission to WVU under this policy, the student will be credited with the hours earned for courses completed with a grade of D or higher.
- c. Grades earned during any prior enrollment period will not be counted for purposes of calculating the student's grade-point average, but grades earned will remain on the student's permanent record.
- d. The student must complete all course work required to meet the college's or school's requirements for graduation, but under no circumstances after the student has been admitted under the academic forgiveness policy shall the student complete fewer than 64 credit hours prior to earning a degree.

- e. A student admitted to WVU under this policy will follow all regulations regarding probation, suspension, and expulsion.

Baccalaureate Degrees

Student Responsibility

As a student, you are responsible for your academic well being. Specifically, you are responsible for knowing your scholastic standing as it relates to the published regulations and standards of West Virginia University. This responsibility includes the regulations of your college or school and the regulations of the department or division in which you are earning a degree.

Regulations Affecting Degrees

All degrees are conferred by the University of West Virginia System Board of Trustees as recommended by the faculty of the various colleges and schools. A degree is granted at the end of the semester or summer session in which you complete the requirements for that degree, provided that you have submitted an application for graduation and diploma at your academic dean's office.

You become eligible to graduate when you complete the requirements of the University and your college or school in effect at the time you first registered at that college or school. You have seven years after your first registration to complete the requirements. If you do not, you will have to meet the requirements of a later catalog—one that is no more than seven years old when you complete your studies. With the consent of your advisor and your dean, you may choose to meet the conditions published in a later catalog.

Students must observe any program changes enacted by the University of West Virginia Board of Trustees or local, state, or federal law.

West Virginia University policy dictates that, in view of their professional responsibilities to the general public, the faculty of a professional school may recommend to the president of the University, in writing, that a student be removed from its rolls. The recommendation of the faculty must indicate that the student is not fit to meet the qualifications and responsibilities of the profession.

West Virginia University will not confer a degree nor issue a transcript to any student until all tuition, fees, and other indebtedness to any unit of the University is paid.

Credits Required

Each degree program is based upon a combination of required courses and electives. Certain University requirements are listed below. In addition, the various colleges and schools determine their own credit requirements and course grade averages for graduation. Total credits vary from 128 to 145. Required grade averages range from 2.0 to 2.5. The determination to count ROTC courses as free electives or toward fulfillment of Liberal Studies Program requirements is the prerogative of the dean of the college awarding the degree. No more than three credit hours of ROTC may count toward fulfillment of the LSP requirement in each cluster area.

Liberal Studies Program (LSP)

West Virginia University believes that its baccalaureate graduates, in addition to developing competence in major and minor fields of study, should be broadly educated. The University's goals are to prepare its graduates to integrate knowledge from a wide variety of fields; to value the continuing search for breadth of knowledge; to be creative and open to new ideas; and to be able to deal constructively with the technological, cultural, and social changes that challenge us in our own country and the world. In order that West Virginia University graduates may be able to adapt to changing circumstances throughout a lifetime of learning, the Liberal Studies Program (LSP) helps students to learn to acquire knowledge, to make critical judgments in a logical and rational manner, and to communicate their findings clearly. The program encourages students to appreciate the past; to value lasting traditions; to accept their responsibilities as citizens of a free society; to respect the traditions, values and individuality of fellow human beings; to broaden their knowledge about people different from themselves, whether by reason of nationality, age, class, gender, or race; and to understand the basic concepts and principles of mathematics and the sciences.

Therefore, West Virginia University baccalaureate graduates are expected to possess knowledge and experience in three broad clusters of learning: the arts and humanities, the social and behavioral sciences, and mathematics and natural sciences. In the arts and humanities, students come to understand and appreciate the human experience. In the social and behavioral sciences, students develop an awareness of personal, interpersonal, and societal forces that shape individual lives. In mathematics and the natural sciences, students acquire an understanding of the unifying principles and methods of science and their application to natural phenomena. University graduates are expected to be able to communicate effectively in the written English language and to possess skills in post-high school mathematics.

Program Components

West Virginia University Liberal Studies Program requirements for all students who receive the baccalaureate degree are divided into a skills component and a distribution component.

Skills Component

Writing:

- All students must successfully complete English 1 and 2. This requirement is in addition to the Cluster A requirements described below.
- All students must successfully complete at least one course that requires a substantial writing component and in which the grade is partially determined by writing skills. These courses will be identified in the LSP portion of the *Schedule of Courses* by a "W". The student must complete English 2 before fulfilling the "W" requirement.

Mathematics:

- All students must successfully complete at least three hours of mathematics or statistics. This requirement is in addition to the Cluster C requirement that is described below. Courses approved for the mathematics skills requirement: Mathematics 3, 4, 11, 14, 15, 16, 23, 28, 128, 131, and 168; Economics 125 and Statistics 101.

Distribution Component

The University courses in the LSP that provide students with broad liberal knowledge and experience are grouped into three Clusters:

Cluster A (Humanities and Fine Arts): The study of humanities develops knowledge of and appreciation for the accumulated wisdom and experience contained in world literature, history, fine arts, religion, and philosophy, with the objective of bringing the student to an active consciousness of the living, operating, and continuing values of human culture.

Cluster B (Social and Behavioral Sciences): The social and behavioral sciences develop in students the knowledge and appreciation of both themselves and the world in which they live. Through the study of anthropology, communication studies, economics, geography, linguistics, political science, psychology, and sociology, communication studies, students are able to comprehend major concepts, evaluate movements and ideas, and anticipate future trends in societies both at home and abroad.

Cluster C (Natural Sciences and Mathematics): Courses in the natural sciences and mathematics provide information about the natural world, and provide a perspective on how an understanding of the natural world is developed. Educated persons should have a knowledge of the physical, chemical, geological, and biological entities and processes that constitute the natural world. Courses in mathematics, statistics, and computer science can provide the technical tools for an understanding of the natural world, as well as an understanding of the methods and value of mathematics considered as a discipline in itself.

Distribution of Cluster Requirements

Cluster A Requirements: 12 hours of Cluster A courses must be distributed according to the following provisions and successfully completed:

- Courses must be successfully completed in three disciplines.
- Two courses must be successfully completed in the same discipline.
- If foreign language courses are chosen to fulfill Cluster A requirements, no student may use more than one first semester course of an elementary foreign language. Language courses in a student's native language may not be used to fulfill Cluster A requirements.
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster A requirements.

Cluster B Requirements: 12 hours of Cluster B courses must be successfully completed and distributed according to the following provisions:

- Courses must be successfully completed in three disciplines.
- Two courses must be successfully completed in the same discipline.
- No more than one multidisciplinary studies (MDS) course may be used

to fulfill Cluster B requirements.

Cluster C Requirements: 11-12 hours of Cluster C courses must be successfully completed and distributed according to the following provisions:

- Courses must be successfully completed in two disciplines.
- At least one course must include a laboratory (identified in the *Schedule of Courses*).
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster C requirements.

NOTE: One three-credit-hour course must focus substantially on the study of a foreign or minority culture or cultures or on women and/or issues of gender.

Inventory of LSP Courses

The courses listed below in Clusters A, B, and C do not constitute an inclusive listing. The Liberal Studies Committee will be changing the list of courses as evaluations are continually made of courses submitted to the LSP Committee for its approval. Students and advisors should consult the latest *Schedule of Courses* for the most recent inventory of courses included in the Liberal Studies Program. Any course listed at any time during the student's period of study may be counted for Liberal Studies Program credit.

Cluster A Courses:

Arabic 1, 2, 3, 4.
Art 30, 105, 106.
Chinese 1, 2, 3, 4.
Classics 1, 2, 3, 4, 101, 102.
Communication Studies 21, 187.
English 21, 22, 24, 25, 30, 35, 36, 40, *80, *85, 125, 130, 131, 132, 133, 134, 141, 143, 150, 170, 171, 172, 175, 178, 180, 181, *186, *188.
Foreign Literature in Translation *13, *14, *15, *16, *17, *18, *111, *112, *121, *122, *131, *132, *141, *142, *151, *152, *161, *162, *166, *171, *181, *182, *188, *189.
French 1, 2, 3, 4, 10, 11.
German 1, 2, 3, 4, 10, 11.
History 1, 2, *5, *6, 11, 12, 52, 53, *80, 100, 101, 103, 105, 107, 109, *117, *118, 119, 120, *121, 122, 155, 156, 157, 159, 161, *164, 177.
Humanities 1, 2, 3, 4, *5, 10, 11, *20.
Italian 1, 2, 3, 4.
Japanese 1, 2, 3, 4.
Landscape Architecture 112.
Linguistics 3.
Mathematics 161, (Equiv. to Phil. 106).
Multidisciplinary Studies *40, 91, 99, *100.
Music 30, 33, 34, *129, 136, 137, *138.
Philosophy 2, 3, 5, 10, 13, 15, 17, 20, 23, 103, 104, 105, 106, 108, 111, *113, 120, 121, *122, 123, *125, 150, 158, 159, 166, 171, 172, 187.
Portuguese 1, 2, 3, 4.
Religious Studies 5, 100, 101, 102, 103, 105, 110, 111, 112, 120, 121, 128, *130, *131, *132, 141, *142, 150.
Russian 1, 2, 3, 4.
Spanish 1, 2, 3, 4, 10, 11.
Theatre 30, 50, 74.
Women's Studies *40.

Cluster B Courses:

Agricultural Education 162.
Child Development and Family Studies 10.
Communication Studies 11, 12, 14, 80, 106, 109, *134, *135, 140, 180.
Economics 51, 54, 55.

Forestry 140.
 Geography 1, *2, 8, 105, 109, 110, 140, 141, *143, *144, 145.
 History *4, *141, *142, *164.
 Journalism 1.
 Linguistics 1.
 Mineral and Energy Resources 97.
 Multidisciplinary Studies 2, *40, 50, *60, 70, 90, 92, 99, *100.
 Political Science 1, 2, 3, 7, 78, 110, 120, *137, *150, *151, 160, 170, 171.
 Psychology 1, 141, 151, *170.
 Recreation and Parks 43.
 Resource Management 1.
 Social Work *47.
 Sociology & Anthropology 1, *5, 7, *51, 121, 122, 123, 125, 131, 132, *135, 136, 137, *138, 140, 152, *155, *156, 157, 158, 159, *160, 162.
 Sport Studies 72.
 Technology Education 181.
 Women's Studies *40, *145.

Cluster C Courses:

Astronomy 106.
 Biology 1, 2, †3, †4.
 Chemistry †11, †12, †15, †16, †17, †18.
 Computer Science 5.
 Economics 125.
 Environmental Microbiology 141.
 Geography 7, 107.
 Geology 1, †2, 3, †4, †6, 7.
 Human Nutrition and Foods 71.
 Mathematics 3, 4, 11, 14, 15, 16, 23, 28, 128, 131, 168.
 Multidisciplinary Studies 2, *60, 70, 90, 91.
 Philosophy 11.
 Physical Science †11, †12
 Physics †1, †2, 7, 8, †11.
 Statistics 101.
 *Satisfies the foreign culture, minority, or gender studies requirement.
 †Satisfies the laboratory course requirement.

Approved 200-Level Courses

No 200-level courses are included in Clusters A, B, and C because they are deemed to be not ordinarily appropriate for the Liberal Studies Program. However, a student may receive approval from his/her advisor to take a 200-level course from the list of approved courses indicated below, in fulfillment of the LSP requirement for each of the three cluster areas.

Cluster A Courses:

Communication Studies 230.
 English 211, 220, 235, 236, 240, 250, 255, 256, 261-268, *288.
 History 200, 204, 205, 206, 207, 208, 214, *225, *226, 231, 232, *245, *246, *251, *252, 253, 259.

Cluster B Courses:

Communication Studies 221.
 Economics 211.

Health Education *290.

History 208, 211, *227, *229, *230, 259.

Political Science *235, *250, *251, *254, *255, *256, *258.

Social Work *247.

Technology Education *245.

*Satisfies the foreign culture, minority, or gender studies requirement.

Residence Requirements

If you decide to transfer to WVU from another institution of higher learning, then you should transfer no later than the start of your third year. Under no circumstances will a student who enters WVU after October 1 in any year be allowed to receive a degree at the next commencement.

In some special cases, you can leave WVU at the end of your third year, and still receive your degree from WVU. You must enter another accredited institution with the purpose of taking a combined program that will lead to two degrees or prepare for graduate study. Before you leave, you must apply to the Academic Standards Committee of your college to request permission to do the work of the fourth year, or a part thereof, at the other institution but still receive the degree from WVU. You will receive your degree when you present the proper records from the other school.

If you are a transfer student who has completed all of your undergraduate work in another school in the West Virginia system of higher education, then you must complete either your last 30 hours of work at WVU or at least 36 hours of work at WVU of which 16 of the last 32 hours must be on campus. If you are a transfer student whose undergraduate work has been completed outside the West Virginia system of higher education, then you must complete a total of 90 hours or at least the last 30 hours of work in residence at WVU. You may be required to earn up to 15 hours in your major field regardless of the number of hours or the nature of the courses transferred.

Work Done Out of Residence

It is WVU's policy to discourage taking regular residence courses in absentia. If you begin a course at WVU but fail to complete it due to illness or some other acceptable reason, you may receive permission to complete the work in absentia. The permission must be granted by the Academic Standards Committee of the college or school concerned, and the work must be done under the guidance of a WVU professor. Credit for the course in such cases is allowed only upon a report of a grade of C or better on the final examination. This regulation does not apply to WVU off-campus courses.

If you fail a course (receive a final grade of F) taken at WVU, you must repeat the course at WVU to receive credit for that course. The dean of the college or school in which you are enrolled may authorize an exception to this regulation. If so, then the dean should provide a letter to be placed in your folder authorizing the exception and explaining its basis.

You should be aware of the requirements for residence and your specific degree requirements described in the catalog when transferring credit from other institutions. If you are transferring credit from institutions outside the West Virginia state system of higher education, WVU will accept credit only for **courses** in which you earned a grade of C or higher provided other conditions above have been met. Under no circumstances will **grades** be transferred from institutions outside the state system.

WVU Transient Students

If you decide to take a course or courses at another school, you must have written approval from your advisor, your dean, and the Director of Admissions and Records or his designee. To receive such approval, you must have an overall 2.0 average. All approved college-level work is accepted for transfer from accredited institutions, provided the above requirements have been met and you have an overall grade-point average of 2.0. If you have less than a 2.0 average, you can transfer courses after you obtain an overall 2.0 at WVU. Only courses with grades of C or higher are accepted from institutions not in the state system. All grades are transferrable from the schools in the state system.

If you fail a course at WVU, you may not repeat this course at another institution and transfer the credit to WVU unless you have the approval of the dean of the college or school in which you are enrolled.

Substitution for Required Courses

You may want to substitute one course for another that is in your curriculum or may be required for your degree. In order to do this, you must get written permission from the Academic Standards Committee of your college or school.

Credit Examinations

Advanced Placement Program (AP)

West Virginia University encourages you to work to your full capacity and to earn your degree at your own learning speed. As a high school junior or senior, you can enter the University early or you can take college-level courses at your school in conjunction with the College Entrance Examination Board (CEEB). The Advanced Placement Service administers three-hour examinations to show competence equal to that received by taking the actual college course. The chart on page 19 shows the subject areas, the necessary test scores, and the WVU equivalent courses.

College Level Examination Program (CLEP)

If you apply for admission to WVU and you have gained a significant level of maturity through your life experiences, you may gain college credit for these educationally related experiences through the College Level Examination Program (CLEP) of the CEEB. A policy of the University of West Virginia Board of Trustees allows University credit to be awarded for successful completion of CLEP subject examinations, except English composition and freshman English. Up to 34 hours of general education credit may be earned for successful performance on the CLEP General Examinations. Although this program was designed primarily for adults, exceptionally well qualified high school seniors may use the CLEP Program. If you are interested, write to the Director of Admissions and Records for additional information. The table on page 20 indicates the areas in which WVU grants credit based on the minimum score required. It should be noted that no one is eligible for CLEP credits after he/she has enrolled at WVU.

If you are a veteran, you may receive advanced placement for specific military experience. Veterans should contact the Director of Admissions and Records for specific information.

Advanced Placement Program

Subject	Test Score	Credit Hours	WVU Equivalent Course
ART:			
Drawing portfolio			To be determined by the Division of Art
General portfolio			To be determined by the Division of Art
Art History	3		To be determined by the Division of Art
BIOLOGY	3	8	BIOL 1, 2, 3, 4
	4	4	BIOL 15
CHEMISTRY	3	8	CHEM 15-16
CLASSICS			
Latin-Vergil	3	3	CLAS 191A
Latin-Catullus-Horace	3	3	CLAS 191B
COMPUTER SCIENCE			
Computer Science A	3	3	Non-specific CS
Computer Science AB	3	6	Non-specific CS
ECONOMICS:			
ECON Microeconomics	3	3	ECON 54
ECON Macroeconomics	3	3	ECON 55
ENGLISH:			
English Lang. & Comp.	3	3	ENGL 1
English Lang. & Comp.	4	6	ENGL 1-2
Lit. & Comp.	3	3	ENGL 35
Lit. & Comp.	4	6	ENGL 35-36
FOREIGN LANGUAGES:			
French Language	3	6	FRCH 103-104
French Literature	3	6	FRCH 191
German Language	3	6	GER 103-104
Spanish Language	3	6	SPAN 103-104
Spanish Lit.	3	6	SPAN 191
GOVERNMENT AND POLITICS			
American Government	3	3	POLS 2
Comparative Government	3	3	POLS 1
HISTORY:			
European	3	6	HIST 1-2
American	3	6	HIST 52-53
MATHEMATICS:			
Calculus AB	3	4	MATH 14
Calculus AB	4	4	MATH 15
Calculus BC	3	4	MATH 15
Calculus BC	4	8	MATH 15-16
MUSIC			
Theory	3	3	
*PHYSICS:			
PHYS B	3	4	PHYS 1
PHYS B	4	8	PHYS 1-2
PHYS C Mechanics	3	4	PHYS 11
PHYS C Electricity/Magnetism ..	3	4	PHYS 12
PSYCHOLOGY			
Introductory Psychology	3	3	PSYC 1

***NOTE:** Students receiving AP credit for any physics course will have to register for and complete the corresponding physics labs by special arrangement with the Department of Physics.

College Level Examination Program (CLEP)

General Examinations	WVU Equivalent	Minimum Score Required
English Composition (with essay)	ENGL 1 (3 hr.)	590
English Composition (multiple choice)	No credit	
Humanities	Untranslated LSP A (6 hr.)	500
Mathematics	Untranslated LSP C (4 hr.)	500
Natural Science	Untranslated LSP C (6 hr.)	500
Social Science & History	Untranslated LSP B (6 hr.)	500
Subject Tests:		
American Literature	ENGL 24 (3 hr.)	59
Analysis & Interpret. of Literature	ENGL 35 (3 hr.)	59
College Composition	No credit	
English Literature	ENGL 22 (3 hr.)	60
Freshman English	No credit	
College French (levels 1 and 2)	FRCH 1 and 2 (6 hr.)	44
	FRCH 3 and 4 (6 hr.)	55
College German (levels 1 and 2)	GER 1 and 2 (6 hr.)	43
	GER 3 and 4 (6 hr.)	54
College Spanish (levels 1 and 2)	SPAN 1 and 2 (6 hr.)	45
	SPAN 3 and 4 (6 hr.)	54
American Government	POLS 2 (3 hr.)	50
American History I	HIST 52 (3 hr.)	49
American History II	HIST 53 (3 hr.)	49
Western Civilization I	HIST 1 (3 hr.)	50
Western Civilization II	HIST 2 (3 hr.)	50
Educational Psychology	EDP103 (3 hr.)	49
General Psychology	PSYC 1 (3 hr.)	50
Human Growth and Development	CDFS 10 (3 hr.)	51
Intro. Macroeconomics	ECON 55 (3 hr.)	50
Intro. Microeconomics	ECON 54 (3 hr.)	50
Intro. Sociology	SOCA 1 (3 hr.)	50
College Algebra	MATH 3 (3 hr.)	48
Trigonometry	MATH 4 (3 hr.)	54
College Algebra/Trig.	MATH 14 (4 hr.)	50
Calculus with Elementary Functions	MATH 15 (4 hr.)	49
General Biology	BIOL 1 and 2 (6 hr.)	49
	(no credit for the labs)	
General Chemistry	CHEM 15 (4 hr.)	50
Computers and Data Processing	C S 1 (4 hr.)	49
Intro. to Management	MANG 105 (3 hr.)	50
Intro. Accounting	ACCT 51 and 52 (6 hr.)	54
Intro. Business Law B.	BLAW 111 (3 hr.)	51
Intro. Marketing	MKTG 111 (3 hr.)	50

Credit by Examination

If you are currently enrolled, you may receive credit for a course or courses if you can demonstrate competency in the course content. The department offering the course determines evaluation standards for the student's competency. If skill and cognitive abilities are components of the course, then both are evaluated. Credit is given only when a satisfactory degree of competency is shown.

A college, school, or department may ask you to prepare a self-evaluation statement. The purpose of the statement is to determine the competency you believe you have and the methods by which you achieved it. If you are interested in credit by examination, contact the dean in the college or school offering the course. The details and procedures will be explained to you at that time.

Credit for Correspondence Work

You may receive credit for correspondence work in non-laboratory courses. You have to meet certain conditions that govern this credit:

- A maximum of 30 hours is acceptable.
- The work must be from accredited institutions.
- The institution must accept the credit toward its own degrees.
- WVU must ordinarily accept that institution's residence work.

Graduate Credit Via Senior Petition

You may begin graduate study early through the University's senior petition policy. A senior petition form may be obtained from the Office of Admissions and Records. You must have it signed by your advisor and the dean of the college granting your degree and the dean of the college of your intended graduate degree (if different). The University has certain policies for you to follow in order to enroll in a graduate course for graduate credit. The policies are:

- Senior petition applies only to courses numbered 200-399. You must be within 12 hours of receiving your bachelor's degree, and your grade-point average must be at least 3.0 on a 4.0 scale.
- You can receive only 12 graduate hours through the senior petition.
- You must have the proper signatures on your senior petition by the time you enroll in the petitioned courses.

Return the approved senior petition to the Office of Admissions and Records. It is kept on file so that you receive graduate credit for these courses on your permanent record. The dean of the college or school in which you are taking graduate courses must approve any exceptions to the policy.

Note: If you receive graduate credit for a course, the credit for that course does not count for your undergraduate degree.

Visitors

Full-time University students may attend classes as visitors. To visit a class, you must have permission in writing from your advisor and the instructor of the course. A member of the administration, teaching staff, or other regular University employees may also attend classes as visitors. These individuals also must have the written permission from their department and the instructor of the class. As a visitor, you do not receive credit for that class. You may not apply for a credit by exam in a class in which you were a visitor.

Auditors

You may register for courses as an auditor and pay full fees for the course. In this situation, you do not receive credit for the course. If you audit a course in one semester, you must let one semester pass before you enroll in the course for credit. You may change your status from audit to grade or grade to audit only during the registration period. Attendance requirements for auditors are determined by the instructor of the course. The instructor may direct the Office of Admissions and Records to remove an auditor from a class list or grade report if attendance requirements are not met.

Summer Sessions

WVU has two six-week sessions. Summer Session One begins in the middle of May and ends on June 30. Summer Session Two begins on July 1 and ends the second week of August. Requirements for admission and work performance for the summer sessions are the same as for the regular semesters.

You may earn credit toward a baccalaureate, master's, doctoral, or professional degree in the summer sessions. Summer offerings vary from year to year. For complete information concerning course offerings during the summer sessions, consult the Summer Session Schedule of Courses.

Evening Classes

If you are unable to attend classes during the day, the University offers evening courses taught by regular faculty. These courses carry full college credit and are offered at both the undergraduate and graduate levels.

Classification of Students

WVU undergraduates are classified as freshmen, sophomores, juniors, or seniors. These classifications are based upon the number of hours completed. The classifications are as follows:

Freshman classification	1-28 hours, inclusive
Sophomore classification	29-58 hours, inclusive
Junior classification	59-88 hours, inclusive
Senior classification	89 or more semester hours

Grade-Point Average

All academic units of the University require minimum standards of scholastic quality. Your grade-point average is computed on grades earned in courses taken at WVU and institutions in the WV system of higher education only. To be eligible to receive a baccalaureate degree, you must have a grade-point average of at least 2.0 at the time of graduation. Some degree programs require a higher grade-point average overall or in the major courses. Your grade-point average is based on all work for which you received letter grades other than W, WU, and P. See "D/F Repeat Policy".

You must make certain that you know your grade-point standing. You can obtain the necessary information concerning your grade-point standing from the dean of your college or school. To determine your grade-point average, use the method described in the section on grade points.

Graduation with Honors

WVU recognizes distinguished academic achievement by awarding degrees *cum laude*, *magna cum laude*, and *summa cum laude*. This distinction can be awarded on the initial or second baccalaureate degrees. All candidates for a baccalaureate degree with a grade-point average of 3.8 or higher graduate *summa cum laude*. Those with a grade-point average of less than 3.8 but equal to or above 3.6, graduate *magna cum laude*. Those with a grade-point average of less than 3.6 but equal to or above 3.4, graduate *cum laude*.

Your grade-point average for honors consideration is based on baccalaureate-level college work attempted through the next to the last semester or through the last semester, whichever GPA is higher. This calculation includes transferrable baccalaureate-level college work attempted at all regionally accredited higher education institutions you have attended. Credit hours earned with a grade of P or S are not considered in the determination. Additionally, your GPA on WVU work must meet the requirements stated for the level of honors to be designated. If your GPA on WVU work indicates a lower level of honors, then the WVU GPA shall govern the specific designation.

Students entering and completing a second baccalaureate degree program following completion of the initial degree at the University are eligible to receive the honors designation. Grade point averages for graduation with honors on second baccalaureate degrees shall be computed on the last 80 semester hours of baccalaureate-level work excluding the credit earned with a P or S. At least 30 semester hours must have been completed in the second degree program through the penultimate semester.

A request for an exception to this policy may be made to your college/school dean. After review, the dean will forward all requests for exceptions of this policy to the Provost for the final decision.

Academic Progress Courses

As a general rule, most courses taught at WVU extend for one semester, although some extend for two semesters. Credit is not awarded for a course if you do not attend the whole course. The only exception to this rule occurs if the Committee on Academic Standards decides to grant an exception. Grades reported at the end of the first semester in a two-semester course are merely an indication of the quality of the student's work to that point. Credit is not given for that part of the course completed. Courses taught in the summer sessions carry the same credit value as fall and spring semester courses.

Evaluation of Student Progress

Your progress is evaluated by a variety of methods. The measurement and evaluation of learning are consistent with the objectives of the course and provide the opportunity for you and your instructor to evaluate your progress. The University discourages evaluation by final examination only. You are responsible for all materials presented or assigned in scheduled instructional sections. If you do not complete all assigned work, you may earn an incomplete (I) or a failing grade (F).

The last week of each semester of the academic year is designated finals week. Final examinations for the summer sessions are given on the last day of classes. The *Schedule of Courses* gives the date and times for final examinations.

Practical laboratory tests, makeup examinations, and regularly scheduled short quizzes are the only tests permitted for day classes during the week of classes preceding finals week. Evening classes have their final exams the last meeting of the class preceding finals week.

If you take a section of a multi-section course, you may be required to take the departmental final examination, given during the regular final examination period.

Grading System

A:	excellent (given only to students of superior ability and attainment)
B:	good (given only to students who are well above average, but not in the highest group)
C:	fair (average for undergraduate students)
D:	poor but passing (cannot be counted for graduate credit)
F:	failure
I:	incomplete
W:	withdrawal from a course before the date specified in the University Calendar
WU:	withdrawal from the University doing unsatisfactory work
P:	pass (see Pass-Fail Grading below)
X:	auditor, no grade and no credit
CR:	credit but no grade
PR:	progress. Final grade at end of the second semester (HSC)
S:	satisfactory
U:	unsatisfactory (equivalent to F)
*F:	unforgivable F, not eligible for D/F repeat policy

Pass-Fail Grading

Pass-fail grading encourages you to take elective courses not related to your degree concentration. Pass-fail grading also facilitates grading in competency-based courses which may be an integral part of your program.

Student Option. Any full-time student who has completed 15 hours or more and has maintained a 2.0 grade-point average may take a maximum of four hours each semester or summer session on a pass-fail basis. Any course taken on a pass-fail basis must be a free elective. You are limited to a total of 18 hours of pass-fail credit in your collegiate career. Unless otherwise indicated, courses in your major, courses in other subjects that are required by the major, and courses taken to satisfy University, college, school, or departmental requirements are excluded from pass-fail. For example, courses elected to satisfy the English, Liberal Studies Program (LSP), or foreign language requirements may not be taken for pass-fail grading.

If you elect a course on a pass-fail basis, you are graded as a regular student. The instructor gives the letter grade to the Office of Admissions and Records. The letter grade is then converted to a P on the basis of A, B, C, or D for a pass and F for a fail. The grade of P does not affect your GPA. However, any F grade affects your GPA whether it is a regular grade or a pass-fail grade.

You choose the option of pass-fail grading for a course during the registration period. Once the registration period has ended, you may not change the grade status in the course.

College or School Option. A department or unit may designate any performance- or competency-based course as exclusively pass-fail. To do this, the college or school must have the approval of the Faculty Senate. Courses offered only as pass-fail are not included in the maximum of 18 hours that may be freely elected under the student option.

Grade Points

Each letter grade has a numeric value. Grade points are based on this number value and the credit-hour value of the course. The numeric value of letter grades are as follows:

A	B	C	D	F	I	U
4	3	2	1	0	0	0

The grade-point average is computed on all work for which you registered, with the following exceptions:

- Courses with a grade of W, WU, P, S, and X carry no grade value. The grade of incomplete (I) initially carries no grade value.
- The grade of I is given when the instructor of the course believes that the work is unavoidably incomplete or that an additional examination is justified. To remove the grade of I, you do not register for the course again; instead, you arrange to submit incomplete or supplemental work to the original instructor of the course. When you receive the grade of I and later remove the incomplete grade, the grade-point average is calculated on the basis of the new grade. If you do not remove the I grade within the next semester in which you are enrolled, the grade of I is treated as an F (Failure). The Academic Standards Committee of the appropriate college or school may allow you to postpone removal of the I grade if you can justify a delay.
- If you are working toward teacher certification, you are responsible for every registration in a course in which the grade of A, B, C, D, F, WU, P, X, or I is received.

GPA Calculations

Students like to know how to calculate their overall and semester grade-point averages. The following example shows how to do it. Assume you are registered for 16 hours and receive the following grades in these courses:

English 1	B	Mathematics 3	A
Geology 1	C	Political Science 1	B
Spanish 1	D	Orientation 1	P

Course	Credit	Grade	Grade Value	Credit X Grade Value	Grade-Points
English 1	3	B	3	3 X 3	= 9
Geology 1	3	C	2	3 X 2	= 6
Spanish 1	3	D	1	3 X 1	= 3
Mathematics 3	3	A	4	3 X 4	= 12
Political Science 1	3	B	3	3 X 3	= 9
Orientation 1	1	P	0	1 X 0	= 0

1. Multiply the credit by the grade value to get the grade points earned for each course.
2. Add the Total Grade Points, in this case, 39.
3. Divide the Total Grade Points by the total credit hours with a grade value.
Remember that P grades have no grade value, so in this case, there are 15 credit hours for the GPA calculation. 39 divided by 15 = grade-point average of 2.6.

D/F Repeat Policy

WVU has a D/F repeat policy for undergraduate students who have not received their initial baccalaureate degree. If you earn a D or F in a course at WVU taken no later than the semester or summer session registration when you reach a cumulative total of 60 hours attempted, you are eligible to D/F repeat that course by meeting with your academic advisor sometime during the semester in which you are repeating the course and filling out the appropriate forms. You must repeat the course at WVU. You will have only one opportunity to improve your original grade. The new grade becomes the grade that counts, even if your performance is worse than when you were originally graded.

When you have D/F repeated a course, the following happens:

1. The original grade is disregarded for the purpose of determining your grade-point average, hours passed, and hours attempted.
2. The original grade is not deleted from your permanent record.
3. The second grade is entered on your transcript and marked repeat in the semester that you repeated the course.
4. You can exercise your right under the D/F repeat policy at any time before you receive your initial baccalaureate degree. If you get a grade of F in a course for disciplinary reasons or for cheating, the grade is not eligible for change under the D/F repeat provisions. Such a failure is indicated on your permanent record by an *F and is calculated in your grade-point average.

Grade Reports

During the seventh week of classes in the fall and spring semesters, instructors submit a report of all undergraduate students earning grades of D or F. These grades are used for counseling and are not recorded on the student's official permanent record. These reports are sent first to the Office of Admissions and Records and then to the student, the student's advisor, and the dean of the college or school in which the student is enrolled.

Final grades are reported within 48 hours after the end of the final examination. The instructor submits the grade reports to the Office of Admissions and Records. The final grades of all seniors provisionally approved for graduation at the close of each semester or summer session are reported to the deans of their colleges or schools. Special report forms for this purpose are supplied by the student's dean.

At the end of each semester or at the close of each summer session, a report of each student's work is prepared for that period and sent to the student.

West Virginia University Policy on the Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 is a Federal law which states: (a) that a written institutional policy must be established; and (b) that a statement of adopted procedures covering the privacy rights of students be made available. The law provides that the institution will maintain the confidentiality of student education records.

West Virginia University accords all the rights under the law to students who are declared independent. No one outside West Virginia University shall have access to nor will West Virginia University disclose any information from students' educational records, without the written consent of students except to personnel within West Virginia University and the West Virginia Board of Trustees; to persons or organizations providing students' financial aid; to accrediting agencies carrying out their accreditation function; to persons in compliance with judicial order; to organizations conducting studies for, or on behalf of, education agencies of institutions for the purpose of developing, validating, or administering predictive testing student aid programs, and improving instruction; and to persons in an emergency in order to protect the health or safety of students and/or other persons. All these exceptions are permitted under the Act.

The Act also permits disclosure of information from students' educational records, without the written consent of students, to parents of a dependent student of such parents, as defined in Section 152 of the Internal Revenue Code of 1954, as amended. West Virginia University intends to consider all students as "dependent" for purposes of disclosure of information to parents unless the students specifically notify in writing the Office of Admissions and Records, West Virginia University, that they are not a "dependent" of their parents for federal income tax purposes. Students need to give such written notification only once.

The West Virginia University Policy on the Family Educational Rights and Privacy Act explains in detail the procedures to be used for compliance with the provisions of the Act. Copies of the policy can be found in the offices of all deans and directors. The policy also is printed in the *Student Handbook* and annually in the *Daily Athenaeum*. The offices of the deans and directors can inform students as to the locations of all education records maintained on students by West Virginia University.

Transcripts of Academic Records

Each copy of an official transcript costs five dollars, payable in cash or money order. You may request, in person, an on-the-spot transcript at a cost of eight dollars. Priority service is not available at all times. Because of demand, it may take two to three weeks to process an application for a regular transcript at the close of a semester or summer session. At other times, it is the policy of WVU to process all regular transcript requests within 48 hours of receipt of the request.

If you owe money or have some other financial obligation to any unit of the University, you forfeit your right to claim a transcript of your record until you meet your obligation. Additionally, you also forfeit the right to claim your diploma until these financial obligations have been met.

When you apply for a transcript, you must furnish your last date of attendance and your student number. Be sure to indicate the full name under which you were enrolled. Requests for transcripts must be made in writing to the Office of Admissions and Records. We cannot accept telephone requests because of the risk to the security of your record.

Final Grade Appeals

Students have the right to appeal final course grades which they believe reflect a capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race, sex, age, handicap, veteran status, religion or creed, sexual orientation, color, or national origin. The grade appealed shall remain in effect until the appeal procedure is completed or the problem resolved. The primary intent of this procedure is to provide a mechanism whereby a student might appeal a failing grade or a grade low enough to cause the student to be eliminated from some program or to require the repetition of a course. Grade appeals that do not meet this classification are not precluded.

Step 1. The student shall discuss the complaint with the instructor involved prior to the midsemester of the succeeding regular semester, whether the student is enrolled or not. If the two parties are unable to resolve the matter satisfactorily, or if the instructor is not available, or if the nature of the complaint makes discussion with the instructor inappropriate, the student shall notify the chairperson of the instructor's department or division (or, if none, the dean). The chairperson or dean shall assume the role of an informal facilitator and assist in resolution attempts. If the problem is not resolved within 15 calendar days from when the complaint is first lodged, the student may proceed directly to Step 2.

Step 2. The student must prepare and sign a document which states the facts constituting the basis for the appeal within 30 calendar days from when the original complaint was lodged. Copies of this document shall be given to the instructor and to the instructor's chairperson (or, if none, to the dean). If, within 15 calendar days of receipt of the student's signed document, the chairperson does not resolve the problem to the satisfaction of the student, the student will forward the complaint to the instructor's dean (see Step 3).

Step 3. Within 15 calendar days of receipt of the complaint, the instructor's dean shall make a determination regarding the grade, making any recommendation for a grade change to the instructor involved. If the instructor involved does not act on the dean's recommendation, or if the student is in disagreement with the decision of the dean, the dean will refer the case to a representative committee, appointed by the dean, for final resolution. This committee shall consist of three or more faculty members, including at least one person outside the instructor's discipline.

1. Upon receiving an appeal, the committee will notify in writing the faculty member involved of the grade challenge, which shall include a statement of the facts and evidence to be presented by the student.
2. The committee shall provide to the faculty member involved and the student making the appeal written notification of their right to appear at a hearing to be held before the department or college or school representative committee, together with the notice of the date, time, and place of the hearing.

3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
4. The final decision of this committee shall be forwarded to the instructor and to the dean involved. If the decision requires a change of grade, the instructor shall take action in accordance with the committee's decision.
5. If the instructor does not act within five days, the dean shall make any necessary grade adjustment.
6. In the case of grade appeals, the dean functions as the President's designee; therefore, implementation of this decision shall end the appeal procedure.

Absences

If you are absent from class for any reason, you are responsible for all work that you missed. Absences may jeopardize your grade(s) in that class or possibly the ability to continue in that course. Instructors are responsible for keeping an accurate record of students enrolled in their classes and their attendance. If an instructor uses attendance records in determining the final grade in a course, then this fact must be announced to the students in writing within the first five class meetings.

Absence from Examinations

You are required to take all regular examinations in a course. If you attend a course all semester but you do not take the final examination and you do not have the instructor's permission to miss it, the instructor may give you a grade of zero for the examination and report a grade of F for the course. If, however, the instructor believes your absence was necessary, he/she has the option to report a grade of incomplete (I).

If your absence from a regularly scheduled examination was due to illness, an authorized University activity, or another reason approved by your dean, you have the opportunity to make up the examination.

Withdrawals From Individual Classes

Deadlines: Until the Friday of the tenth week of class (or Friday of the fourth week in a six-week summer session, or Friday of the second week of a three-week summer session), students may withdraw from individual courses. Deadlines are published in the University *Schedule of Courses* each semester. If you follow all established University procedures and withdraw before the published deadline, you will receive a W on your transcript. Grade-point averages are not affected in any way by this mark.

Procedures:

1. Before withdrawing from individual classes, consult your advisor to determine:
 - Whether your course load would be reduced below the minimal requirements set by your college or school. If so, you must get permission from the Committee on Academic Standards of your college or school before you submit the course adjustment form.
 - Whether your course load would be reduced below the minimal number of hours required to qualify for financial aid, varsity athletic competition, or international full-time student status;

- Whether the courses to be dropped are required to fulfill academic probationary conditions;
 - Whether the courses from which you want to withdraw might be corequisite with other courses you are taking, or prerequisite to other courses required for the next term.
2. Ask your advisor to sign the University course adjustment forms and then submit the forms to the Office of Admissions and Records.

Withdrawal From the University

Deadlines: You may withdraw from the University any time before the last day of a semester or session on which regular classes are scheduled to meet. If you withdraw before the Friday of the tenth week of classes (or the Friday of the fourth week in a six-week summer session, or the Friday of the second week of a three-week summer session) you receive grades of W in all of your courses for that semester or session. After these deadlines, you will receive grades of W in those courses in which you made satisfactory progress and grades of WU for courses in which your progress had been unsatisfactory.

Procedures:

1. Students who decide to leave WVU should withdraw from all classes and must do so in accordance with established University policy. Students are responsible for all financial obligations and for following established procedures. This includes the completion of forms and the delivery of the completed forms to appropriate officials. Students not fulfilling their financial obligations may have difficulty withdrawing from the University. A withdrawal becomes official only after the forms have been recorded by the Director of Admissions and Records.
2. Students who are unable to withdraw in person because of illness, accident, or other valid reasons still must send notification of their intention to withdraw to the Office of Student Life. The notice should be verified in writing and the student ID and PRT cards enclosed.
3. Students who desire to withdraw from WVU must obtain a withdrawal form from the Student Affairs office (or dean's office of an off-campus instructional unit). Withdrawal procedure is explained at that time. Identification (ID) and PRT cards must be presented.
4. With the help of their academic advisors, students are responsible for determining how withdrawal from the University may affect their future status with the University, including such aspects as suspension for failure to make progress toward a degree or violation of established academic probation and eligibility for scholarships, fellowships, or financial aid.

Academic Leave of Absence

WVU offers undergraduate students in good standing, as defined by WVU's uniform suspension policy and not subject to disciplinary action, the opportunity to request an academic leave of absence. The academic leave of absence is designed for the student who wishes to be away from his/her academic endeavors at WVU for one or more semesters, but intends to return at a later date. Leave of absence status must be requested before the beginning of the semester for which the leave is desired. The academic records of students on an academic leave of absence remain in an active

status. While on an academic leave of absence, the student retains the right to use certain campus facilities such as the Reading Lab, Writing Lab, Math Lab, Student Counseling Service, and Career Services. When a student decides to return to WVU after his/her academic leave of absence, application fees are waived. If a student attends any institutions of higher education while on leave of absence, s/he must obtain an overall average of 2.0 on all work attempted in order to be eligible to return. An overall grade point average of 2.0 on all work attempted while on leave combined with the WVU grade point average is also acceptable. While on an academic leave of absence, the student receives communications from WVU. Academic advisors and the Office of Admissions and Records can provide additional details about an academic leave and eligibility requirements.

Re-Enrollment After Withdrawal

After you withdraw from WVU in two consecutive semesters (excluding summer sessions), you may not register for further work without approval of the dean of the college or school in which you want to register and subject to conditions set by that dean.

Committee on Academic Standards

The Committee on Academic Standards of each college or school shall have authority to proceed according to its best judgment in regard to students referred to it for consideration. All orders of the committee shall become effective when approved by the dean of the college or school. In exercising its authority, the committee shall not suspend a student during a semester except for willful neglect and in cases where the student's class grades are so low that further class attendance would be a waste of time. No suspension shall become effective until approved by the dean of the college or school.

Probation, Suspension, Readmission, Expulsion Policy
Uniform Probation

Students with a cumulative grade-point average below 2.0 are notified on semester grade reports that their academic performance is unsatisfactory. Such students may be subject to probation by the dean of their college or school. A unit may require a grade-point average above 2.0 or other academic requirements for purposes of determining probation or meeting degree requirements. Students have the right to have the sanction of academic probation reviewed and explained by the academic official who imposed the sanction. Academic probation is not recorded on a student's permanent record and constitutes a warning to the student of standards which must be met.

Maximum Allowable Grade-Point Deficiency*

<i>Total Hours Attempted**</i>	<i>Maximum Grade-Point Deficiency**</i>	<i>Total Hours Attempted**</i>	<i>Maximum Grade-Point Deficiency**</i>
0-19	20	55-59	12
20-24	19	60-64	11
25-29	18	65-69	10

30-34	17	70-74	9
35-39	16	75-79	8
40-44	15	80-84	7
45-49	14	85 or more	6
50-54	13		

*The grade-point deficiency is the difference between the number of grade points needed for a 2.0 average and the number of grade points that a student has actually earned in all courses attempted.

**Includes all hours attempted in institutions in the West Virginia System of Higher Education, excluding grades of P and exclusive of the D/F Repeat Policy.

Uniform Academic Suspension Regulations

The student whose cumulative grade-point deficiency exceeds the "allowable grade-point deficiency" (see Table) is subject to suspension at any time. Normally, students are suspended at the end of a semester or summer school session. Deans have the authority to waive suspension in favor of probation if in their judgment the circumstances of individual cases so warrant. The suspension rule will be set aside only under extraordinary conditions.

Academic suspension identifies the status of a student who has failed to meet the University minimum standards and who has been notified formally by the dean of the college or school of academic suspension. Suspension from the University means that a student will not be permitted to register for any classes, including those in summer sessions, offered by the University for academic credit until the student has been officially reinstated. The normal period of suspension is a minimum of one academic semester but will not exceed one calendar year from the date of a student's first suspension. A student who has been suspended for academic deficiencies and who takes courses at other institutions during the period of suspension cannot automatically transfer such credit toward a degree at West Virginia University upon readmission to the University. Students are not eligible for readmission if they earn less than a 2.0 at other institutions while on suspension from WVU.

After one semester of satisfactory performance (C average or better on a minimum of 12 credit hours earned during a regular semester or during the summer sessions) the appropriate transfer credit will be entered into the student's record upon certification by the advisor and dean that the above conditions have been met. A student who has preregistered and is subsequently suspended shall have his/her registration automatically cancelled.

Reinstatement After Suspension

During the semester immediately following the effective date of suspension, suspended students may petition in writing for reinstatement. The college or school petitioned shall establish the terms of reinstatement for successful student petitions. After one calendar year from the effective date of suspension, any student who has been suspended one time shall, upon written application, be reinstated to the University and to the college or school in which the student was previously enrolled, unless the student petitions for admission to another college or school. The college which reinstates the student removes the student's suspension restriction in Admissions and Records and accepts the student.

A suspended student who is reinstated under the provisions above will be placed on academic probation and will be subject to the maximum grade-point deficiency regulations as before, unless the terms of probation agreed to by the student and that college stipulate otherwise. Each college or school shall have the right to establish requirements or performance expectations.

After the second or any subsequent suspension, a student may be reinstated to the University provided that a college or school agrees to reinstate the student. After a student has been reinstated, he/she must apply for readmission through the Office of Admissions and Records.

Appeal of Suspension

Imposition of academic suspension based on grade-point average, failure to meet the conditions previously specified for removal of academic probation, or failure to meet the conditions of admission, may be appealed under the following conditions:

- The student may appeal individual final course grades and, if successful, may be reinstated.
- The student may make an appeal to the appropriate dean based on erroneous calculation of the grade-point average or on erroneous calculation of the time period within which a grade-point average must be achieved. The decision of the dean, as the President's designee, is final.

Students have the right to appeal academic suspensions based on requirements or standards other than grades or grade-point average which they believe reflect capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race or color, sex, sexual orientation, veteran's status, religion, age, disability, national origin, creed, ancestry, or political affiliation. At the dean's discretion, suspensions may remain in effect until appeal procedures are completed.

Step 1. The student shall discuss the complaint with the dean involved within 30 calendar days of the action taken. If the two parties are unable to resolve the matter satisfactorily within 15 calendar days, the student may proceed to Step 2.

Step 2. The student must prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document shall be given to the University Committee on Student Rights and Responsibilities. Within 15 calendar days of receipt of the appeal, the University Committee on Student Rights and Responsibilities will arrange a hearing using the following procedures:

1. All parties involved shall receive written notice of the date, time, and place of the hearing.
2. The student may be advised by a person of his/her choice from within the institution; likewise, the academic officer recommending suspension may have an advisor from within the institution. Such advisors may consult with but may not speak on behalf of their advisees or otherwise participate.
3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
4. Witnesses may be called by any of the parties involved.
5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of the parties involved upon written request.

The decision of the University Committee on Student Rights and Responsibilities will be sent to the dean involved and the student within seven calendar days of the hearing. If the decision requires a reinstatement, the dean will take action in accordance with the Committee's decision. If the decision of the Committee is to uphold the suspension, the student's appeal must reach the appropriate Vice President within 30 calendar days of receipt of the Committee decision. The Vice President will review and make a decision regarding the suspension within 15 calendar days of receiving the student's appeal. The decision of the Vice President, as the President's designee, is final.

Uniform Academic Dismissal Regulations

Academic dismissal from the University means that a student will not be permitted to register for any classes, including those in summer sessions, offered by the University. Academic dismissal can result from repeated failure to make academic progress and/or to meet probationary terms set forth in writing by the student's college or school.

After five calendar years from the effective date of academic dismissal, any student who has been dismissed shall, upon written application, be considered for reinstatement to the University, with the terms of reinstatement to be established by the college or school entered. Failure to meet these terms will result in permanent academic expulsion.

Appeal of Dismissal

Note: The procedures and appeals described do not apply to dismissal as a sanction for academic dishonesty.

The time limitations stated herein are suggested in order to render a decision as expeditiously as possible. In the case of University holidays or absence of person(s) involved, reasonable delays may be expected.

A decision to dismiss a student for failure to meet academic standards (as distinguished from academic dishonesty) can be made only after the student has been counseled by the appropriate departmental committee or representative, with counseling to take place as soon as possible after discovery of the problem. After the student is given a reasonable opportunity to correct deficiencies, there shall then be a formal review of the student's status by the appropriate departmental or program committee to determine whether the student shall be retained or dismissed. The student may provide the committee written documentation of his/her efforts to correct deficiencies. A committee recommendation for dismissal, including any documentation provided by the student to the committee, shall be forwarded to the student's dean and to the student. Within 15 calendar days of receipt of the committee's recommendation, the dean shall inform the student and the student's department/program of his/her decision. A decision to dismiss shall specify whether the dismissal is from the program or college/school. The dean may also dismiss a student from the institution if the student does not meet institutional standards.

Dismissal, based on grades or grade-point average, from undergraduate programs, graduate programs, professional programs, and/or from the institution, may be appealed.

Step 1. The student shall prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document must reach the dean within 30 calendar days of receipt of written notice of dismissal. The student shall be given an opportunity to discuss the appeal with the dean at any

time in Step 1. If the matter is not resolved satisfactorily within 15 calendar days of a dean's receipt of a student's appeal, the student may proceed to Step 2.

Step 2. The student will forward a copy of the appeal to the appropriate Vice President within 15 calendar days of failure to resolve the matter at the dean's level. Prior to the decision of the Vice President, the student will be given an opportunity to discuss the appeal with the Vice President. The decision of the Vice President, as the President's designee, shall be rendered within 15 days of receipt of the student's appeal and is final.

Dismissal, based on failure to meet academic requirements or performance standards irrespective of grades or grade-point average, from undergraduate programs, graduate programs, professional programs, and/or from the institution, may also be appealed. Students have the right to appeal academic dismissal based on requirements or standards other than grades or grade-point average which they believe reflect capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race or color, sex, sexual orientation, veteran's status, religion, age, disability, national origin, creed, ancestry, or political affiliation.

Step 1. The student shall prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document must reach the dean within 30 calendar days of receipt of written notice of dismissal. The student shall be given an opportunity to discuss the appeal with the dean at any time in Step 1. If the matter is not resolved satisfactorily within 15 calendar days of the dean's receipt of a student's appeal, he/she may proceed to Step 2.

Step 2. The student will forward a copy of the appeal to the University Committee on Student Rights and Responsibilities, which, within 15 calendar days of receipt of the student's appeal, will arrange a hearing using the following procedures:

1. All parties involved shall receive written notice of date, time, and place of hearing.
2. The student may be advised by a person of his/her choice from the institution; likewise, the academic officer recommending academic dismissal may have an advisor from the institution. Such advisors may consult with but may not speak on behalf of their advisees or otherwise participate directly in the proceedings unless they are given specific permission by the University Committee on Student Rights and Responsibilities Chairperson.
3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
4. Witnesses may be called by any of the parties involved.
5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of the parties involved upon written request.

The University Committee on Student Rights and Responsibilities will reach a decision within seven days. The committee's recommendation for dismissal must be reviewed by the appropriate Vice President, who may confirm or remand the recommendation with specific instructions. Prior to the decision of the Vice President, the student will be given an opportunity to discuss the appeal with the Vice President. Within 15 calendar days of a recommendation for dismissal confirmed by the Vice President, the student may appeal to the President. The decision of the President is final.

Academic Integrity/Dishonesty

The academic development of students and the overall integrity of the institution are primary responsibilities of WVU. Academic dishonesty is condemned at all levels of life, indicating an inability to meet and face issues and creating an atmosphere of mistrust, disrespect, and insecurity. In addition, it is essential in an academic community that grades accurately reflect the attainment of the individual student. Faculty, students, and administrators have shared responsibilities in maintaining the academic integrity essential for the University to accomplish its mission.

Responsibilities

Students should act to prevent opportunities for academic dishonesty to occur, and in such a manner to discourage any type of academic dishonesty. Faculty members are expected to remove opportunities for cheating, whether related to test construction, test confidentiality, test administration, or test grading. This same professional care should be exercised with regard to oral and written reports, laboratory assignments, and grade books.

Deans and department chairpersons are expected to acquaint all faculty with expected professional behavior regarding academic integrity, and to continue to remind them of their responsibility. Deans and department chairpersons shall assist faculty members and students in handling first-offense cheating allegations at the lowest possible level in the University, and with discretion to prevent damage to the reputation of any person who has not been found guilty in the prescribed manner.

Each member of the teaching faculty and all other WVU employees, including but not limited to assistants, proctors, office personnel, custodians, and public safety officers, shall promptly report each known case of academic dishonesty to the appropriate supervisor, department chairperson, or dean of the college or school concerned, and to the Office of Judicial Programs, Office of Student Life.

Academic Dishonesty Defined

West Virginia University expects that every member of its academic community shares the historic and traditional commitment to honesty, integrity, and the search for truth. Academic dishonesty is defined to include but is not limited to any of the following:

- **Plagiarism:** To take and pass off as one's own the ideas, writings, artistic products, etc. of someone else; for example, submitting, without appropriate acknowledgment, a report, notebook, speech, outline, theme, thesis, dissertation, or other written, visual, or oral material that has been knowingly obtained or copied in whole or in part, from the work of others, whether such source is published, including (but not limited to) another individual's academic composition, compilation, or other product, or commercially prepared paper.
- **Cheating and dishonest practices** in connection with examinations, papers, and projects, including but not limited to:
 - a. Obtaining help from another student during examinations.
 - b. Knowingly giving help to another student during examinations, taking an examination or doing academic work for another student,

or providing one's own work for another student to copy and submit as his/her own.

- c. The unauthorized use of notes, books, or other sources of information during examinations.
- d. Obtaining without authorization an examination or any part thereof.
- **Forgery, misrepresentation or fraud:**
 - a. Forging or altering, or causing to be altered, the record of any grade in a grade book or other educational record.
 - b. Use of University documents or instruments of identification with intent to defraud.
 - c. Presenting false data or intentionally misrepresenting one's records for admission, registration, or withdrawal from the University or from a University course.
 - d. Knowingly presenting false data or intentionally misrepresenting one's records for personal gain.
 - e. Knowingly furnishing the results of research projects or experiments for the inclusion in another's work without proper citation.
 - f. Knowingly furnishing false statements in any University academic proceeding.

Procedure for Handling Academic Dishonesty Cases

Academic dishonesty includes plagiarism; cheating and dishonest practices in connection with examinations, papers, and projects; and forgery, misrepresentation, and fraud. Some cases of forgery, misrepresentation, or fraud which occur outside the context of courses or academic requirements may be referred directly to the University Committee on Student Rights and Responsibilities by any member of the University community. In such cases, the University Committee on Student Rights and Responsibilities will arrange a hearing following the procedure outlined in Step 3 within 15 calendar days of receipt of the charges.

Step 1. If a student is charged with academic dishonesty, the instructor will contact the student in person and/or notify the student in writing of the specifics of the charge within 15 calendar days of the discovery of the offense. The student must respond within five calendar days of the receipt of the notification. If the instructor determines the student is guilty, the maximum penalties the instructor may administer are exclusion from the course, a lower grade, and/or an unforgivable F (not eligible for D/F repeat policy) in the course. The instructor and/or department chairperson also may recommend to the dean of the college in which the course is offered that additional penalties be imposed on the student. At the discretion of the faculty member or department chairperson, in cases where there is written admission of guilt by the student, the case may be satisfactorily resolved at the departmental level. Whenever a penalty is administered, the facts of the case shall be reported in writing to the dean of the college or school and a copy forwarded to the Office of Judicial Programs for the permanent records. In cases wherein academic dishonesty occurs in a college or school other than that in which the student is enrolled, the results of the case shall be reported to the dean of the college or school in which the student involved is enrolled.

Step 2. If the student denies guilt, if the student believes the penalty imposed in Step 1 is unjust, or if the instructor and/or department chairperson determines the penalties available at Step 1 are insufficient for a specific act, the dean of the college or school in which the course is offered shall be notified in writing of the specifics of the case. The dean shall then implement the following steps within 15 calendar days of receipt of notification:

1. Formal notification to the faculty member that the student is appealing the penalties imposed in Step 1, or formal notification to the student and faculty member of the charges and nature of evidence which, if proved, would justify additional action.
2. Opportunity for the student, faculty, and witnesses to respond or present evidence in writing to the charges.
3. Review by the dean of the facts and evidence presented, and a determination of the penalty or action, if any, to be applied.

Step 3. If the student wishes to appeal the decision of the dean, the appeal must reach the University Committee on Student Rights and Responsibilities within 30 calendar days of the student's receipt of the dean's decision. The University Committee on Student Rights and Responsibilities will arrange a hearing within 15 calendar days using the following procedures:

1. All parties involved shall receive written notice of the date, time, and place of the hearing.
2. The student may be advised by a person of his/her choice from within the institution; likewise, the academic officer recommending the additional action may have an advisor from within the institution. Such advisors may consult with, but may not speak on behalf of their advisees, or otherwise participate directly in the proceedings unless they are given specific permission by the University Committee on Student Rights and Responsibilities Chair.
3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
4. Witnesses may be called by any of the parties involved.
5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of those involved upon written request.

The University Committee on Student Rights and Responsibilities will reach a decision within seven days of the hearing. If the University Committee on Student Rights and Responsibilities finds the student guilty, it will determine the penalty it deems appropriate under the circumstances and inform all parties involved. The penalty imposed cannot be more severe than the penalty imposed by the dean.

Step 4. Only sanctions of suspension or dismissal invoked or upheld by the University Committee on Student Rights and Responsibilities may be appealed to the President or his/her designee. Such appeals must reach the President's Office within 30 calendar days after receipt of written notice of the decision of the University Committee on Student Rights and Responsibilities. The decision of the President or the President's designee is final.

Graduate Admission and Policies

Health Sciences Center Graduate Council

The Health Sciences Center Graduate Council advises the Vice President for Health Sciences. In this role the Council monitors and administers the graduate studies policies of the schools located at the Health Sciences Center.

Application and Admission

Prospective graduate students are urged to initiate application for admission as early as possible. The first step of a student interested in a degree program should be to ask for information from the department, division, school, or college offering the program desired; the reply to such an inquiry will include instructions for applying to the particular program.

In all cases, application must be made for admission to graduate study on standard forms provided by the WVU Office of Admissions and Records. The completed form is to be returned to the Office of Admissions and Records, and must be accompanied by payment of a nonrefundable special service fee of \$45.00. Applicants must at the same time request the registrar or records office of the college send an official transcript directly to the Office of Admissions and Records. If other institutions have been attended in the course of undergraduate or graduate study, transcripts should be requested from them as well. No one is admitted to graduate study who does not hold a baccalaureate degree.

If the applicant meets the minimum admission requirements of WVU, a copy of the application is forwarded to the faculty of the program of interest. Any graduate degree program is permitted to set admission requirements which go beyond the minimum admission standards of the University. No one can pursue an advanced degree at WVU unless admitted to the appropriate degree program.

Reapplication

When a student graduates or completes the program for which he/she applied, the student must reapply and be readmitted before taking further course work at WVU. This policy assures that the University is informed of the student's objectives and that he/she is assigned an appropriate advisor. Students will be assessed the application fee for each new application.

When eight years have passed since initial course work, a student must reapply. The application fee will be assessed.

Classification of Graduate Students

Regular: A regular graduate student is a degree-seeking student who meets all the criteria for regular admission to a program of his/her choice. The student must possess a baccalaureate degree from a college or university, have a grade-point average of at least 2.5 (on a 4.0 scale), have met all the criteria established by the degree program, and be under no requirements to make up deficiencies.

Provisional: A student may be admitted as provisional by any unit when the student possesses a baccalaureate degree but clearly does not meet the criteria for regular admission. The student may have incomplete credentials, deficiencies to make up, or may have an undergraduate scholastic record which shows promise, but less than the 2.5 grade-point average required for regular admission.

Non-Degree: A non-degree student is a student not admitted to a program. Admission as a non-degree student does not guarantee admission to any course or program. To be admitted as a non-degree student, a student must only present evidence of a baccalaureate degree, however the student must obtain a 2.25 grade-point average on the first 12 credit hours of course work and maintain this average as long as enrolled. To be eligible to enter a degree program, the student must maintain a minimum of a 2.75 grade-point average on all course work taken since admission as a graduate student.

Reclassification

Provisional to Regular

- The provisions of a student's provisional status must be specified in the letter of admission.
- To be reclassified as a regular student, a student must meet the provisions stated in the letter of admission and achieve a minimum grade-point average of 2.75 on all course work taken during the provisional period. Individual degree programs may set higher grade-point average requirements.
- No later than the completion of the 18th credit hour, a unit must review the student's record and make a final decision on the student's admission. A student who has met the provisions of admission and achieved the required grade-point average will be reclassified as a regular student. A student who fails to meet the provisions of admission or who fails to achieve the required grade-point average will be suspended, but may be reinstated in order to transfer to another program or to non-degree status. The academic unit must notify the student and the Office of Admissions and Records of its decision.
- Upon notification by the appropriate academic unit, the Office of Admissions and Records will prohibit the registration of all provisional graduate students who have reached the maximum of 18 credit hours. Registration will not be permitted until the student is reclassified as a regular student, an exception is granted by an academic dean, or the student is transferred.
- A student may be admitted as a provisional graduate student more than one time, but not to the same graduate program.
- All credit hours taken since admission as a provisional graduate student or to be applied to a degree count in the 18 credit-hour limit, i.e., undergraduate or graduate credit, P/F, S/U, graded courses, credit by senior petition, and transfer credit.

Regular or Provisional to Non-Degree:

- Regular and provisional students may become non-degree students by choice. This includes students who fail to meet admission or academic standards or who withdraw voluntarily.
- To change a student to non-degree status, the advisor must process a Graduate Studies Transfer/Status form through the Health Sciences Center Graduate Programs Office.

Non-Degree to Regular or Provisional:

- Non-degree students who later wish to become degree candidates must transfer and present all the credentials required by the degree program. This requires the processing of a Departmental Decision form by the student's advisor through the HSC Graduate Programs Office.
- For admission to a degree program, a non-degree student must have achieved a minimum grade-point average of 2.75 on all course work taken since admission as a graduate student.

Graduate Record and Other Examinations

Many programs at WVU require Graduate Record Examination (GRE) scores from all applicants, but in no program are they the sole criterion for admission. Some programs require both the general aptitude and the appropriate advanced test before considering an applicant for admission. All departments in the School of Medicine and School of Pharmacy require that a student take the GRE test.

International Admission

West Virginia University is authorized under federal law to enroll nonimmigrant foreign nationals as students. International students wishing to enroll as undergraduate students at WVU must comply with the stated academic requirements for admission and with certain additional academic and nonacademic requirements.

April 1 has been established as the application deadline for the fall semester. International students applying for admission to West Virginia University must submit the following:

- Completed International Student Admission Application.
- Application service fee.
- Results of the Test of English as a Foreign Language (TOEFL). TOEFL results must be sent to WVU directly from the Educational Testing Service (ETS).
- Original or certified copies of an official academic record in original language of issue.
- Original or certified copy of official certification of degree in original language of issue.
- Official English translations of academic record and certification of degree.

International applicants who have completed high school in the United States may also be required to submit ACT or SAT results.

The above items should be sent to Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009 and must be received by the application deadline. Wherever possible, all application material should be submitted at one time (TOEFL scores and official transcripts from United States institutions should be requested so that all material arrives at West Virginia University close to the same date). Incomplete applications can not be guaranteed consideration for the desired semester.

Required Academic Credentials

Applicants must submit academic records from all secondary and post-secondary institutions attended regardless of whether or not grades were issued or credit was received. WVU requires that original or certified copies of the original academic documents from non-United States institutions be submitted. The required documents include the official academic record (showing course titles, dates taken and grades received), and diploma(s) or certificate(s) showing degree awarded. These documents must be in the original language of issue. Official English translations must be provided as well as the official academic credentials in the original language. Any translation of a document must be a literal, word-for-word translation and must indicate actual grades received, not an interpretation of the grades. Applicants who have studied in the United States are required to have the institution(s) in the United States send their official transcript directly to WVU.

Documents received by WVU can not be returned to the applicant. It is therefore recommended that students who receive only one original copy of their credentials submit certified copies with their application.

English Language Proficiency

All applicants whose first language is not English must provide proof of English language proficiency. WVU uses the Test of English as a Foreign Language (TOEFL) as the measure of English language proficiency. A score of 550 on the TOEFL is the minimum required. Applicants must make arrangements to take the TOEFL well in advance of the desired date of enrollment at WVU. Information about registration for the TOEFL can be obtained by writing to the Educational Testing Service (ETS), P.O. Box 6154, Princeton, NJ 08541-615, USA, or by contacting the local office of the United States Information Service (USIS). Applicants who have received a high school diploma or a bachelor's degree in the United States need not submit TOEFL results.

In some cases, it may be possible to consider applications for students who lack adequate TOEFL scores, to enroll in the West Virginia University intensive English program. Such applicants must contact the intensive English program and directly and notify the Office of Admissions and Records of their intentions. Admission to the intensive English program does not guarantee admission to the university or to a specific program of study. Inquiries for the intensive English program should be directed to the Intensive English Program, Department of Foreign Languages, West Virginia University, P.O. Box 6298, Morgantown, WV 26506-6298

Financial Documents and Student Visa

International students requiring a form I-20 or IAP-66 for student or exchange visa must provide certification of adequate financial resources. Generally, the student must provide an official bank statement showing the availability of the appropriate funds. If a private sponsor will be the student's source of support, the sponsor must submit a letter showing intent to sponsor and an official bank statement showing the availability of the appropriate funds. Other forms of support could include sponsorship certifications from the student's government or sponsoring agency. In all cases, original or certified copies of financial/sponsorship documents must be submitted before the I-20 or IAP-66 can be issued.

Intrauniversity Transfers

To transfer from one school/department to another, a student may initiate a transfer request by contacting the Health Sciences Center Graduate Programs Office or his/her advisor. The advisor must contact the Health Sciences Center Graduate Programs Office, which will complete the transfer.

Credits

Credit toward a graduate degree may be obtained only for courses listed in the graduate catalog and numbered 200–499, in which the grade earned is A, B, C, or S. No course in which the grade earned is D, P, F, or U can be counted toward a graduate degree.

Employed Graduate Students

Graduate students will be required by their advisors to limit their credit loads in proportion to the outside service rendered and the time available for graduate study. In general, persons in full-time service to the University, or other employer, will be advised to enroll for no more than six hours of work in any one semester and those in half-time service for no more than 12 hours. Maximum credit loads may be less for employed graduate students in some academic colleges, schools, and departments.

Non-Degree Graduate Students

A non-degree graduate student may accumulate unlimited graduate credit hours, but if the student is later admitted to a degree program, the faculty of that program will decide whether or not any credit earned as a non-degree student may be applied to the degree. Under no circumstances may a non-degree student apply more than 12 hours of credit toward a degree.

Transfer or Transient Credit

To apply graduate-level credits from other institutions toward a master's degree at WVU, students must get permission from the individual schools or colleges. The standardized transient application form must be approved and signed by a unit chairperson or designate, prior to the student enrolling in the course(s) to be transferred to WVU. The school or department submits the approved form to the Health Sciences Graduate Programs Office for final approval and submission to Admissions and Records. It is the students responsibility to see that Admissions and Records gets an original transcript from the other institution. Only credit earned at institutions accredited at the graduate level may be transferred.

Graduate courses taken elsewhere will not be approved for transfer credit unless the transient application form was approved before enrolling in them. When a school or department approves the form, it is sent to the Health Sciences Center Graduate Programs Office for approval. A maximum of 12 semester hours from other institutions will be accepted for credit at WVU in master's programs requiring 30 to 41 semester hours. Eighteen semester hours will be accepted for master's degree programs requiring 42 or more semester hours. Individual graduate programs may accept fewer credit hours.

Time Limits

Master's Degree: All requirements for a master's degree must be completed within eight years preceding the student's graduation.

Doctoral Degree: The doctorate is a research or performance degree and does not depend on the accumulation of credit hours. The three requirements of the degree are admission to candidacy, residency, and completion and defense of the dissertation. The degree signifies that the holder has the competence to function independently at the highest level of endeavor in the chosen profession. Hence, the number of years involved in attaining or retaining competency cannot be readily specified. Rather, it is important that the doctoral student's competency be assessed and verified in a reasonable period of time prior to conferral of the degree.

The qualifying examination is the method of assessing whether the student has attained sufficient knowledge of the discipline and supporting fields in order to undertake independent research or practice. It is expected that the examination will occur after all course work has been completed and language or other requirements satisfied, and it consists of a series of examinations covering all areas specified in the plan of study. After the component parts of the qualifying examination have been successfully passed, the student is admitted to candidacy for the degree. It is sometimes called the candidacy examination because no one can be called a doctoral candidate until this first requirement for the degree has been met.

Because the qualifying examination attests to the academic competence of the student who is about to become an independent researcher or practitioner, the examination should not precede the degree by too long a period of time. Consequently, doctoral candidates are allowed no more than five years in which to complete remaining degree requirements. In the event a student fails to complete the doctorate within five years after admission to candidacy, an extension of time can be obtained only by repeating the qualifying examination, and meeting any other requirements specified by the student's committee.

Contractual Nature of Graduate Study

The student's rights, privileges, obligations, and responsibilities are contained in the graduate catalog, the plan of study, and, if research is one of the degree program requirements, the prospectus. Although not contracts in the formal legal sense, they are agreements between the University and a student for the accomplishment of planned educational goals.

Plan of Study

The plan of study is submitted within the first academic year (18 hours for a master's and 30 hours for doctorate/after thesis committee for nursing) to the Health Sciences Center Graduate Programs Office. The plan of study is subject to approval and is made a part of the student's record. It then becomes a formal agreement between student and program faculty as to the conditions which must be met for completion of the degree requirements. Any subsequent changes in plan of study (or prospectus) can be made only through mutual agreement, with a memorandum of changes sent to the Health Sciences Center Graduate Programs Office.

Records

The Health Sciences Center Graduate Programs Office maintains all records for monitoring student progress and for certifying students for graduation. Among these records are plans of study (subject to chairperson of Health Sciences Center Graduate Council's approval); graduate committees (subject to school dean's or designate's approval and approval of the Health Sciences Center Graduate Programs Office); grades and grade modifications.

Grading

Pass/fail grading is not applicable to the course work for a graduate degree. A graduate student may register for any course (1–499) on a pass/fail basis only if the course involved is not included in the student's plan of study and does not count toward a graduate degree. The selection of a course for pass/fail grading must be made at registration and may not be changed after the close of the registration period. A student who, having taken a course on a pass/fail basis, later decides to include the course as part of a degree program must re-register for the course on a graded (A, B, C, D, or F) basis.

Incompletes

The grade of I is given when the instructor believes the course work is unavoidably incomplete or that a supplementary examination is justifiable. The grade of I must be removed within one academic year or made a permanent incomplete. Grade modification forms are to be signed by the instructor of the course and then forwarded to the Health Sciences Center Graduate Programs Office for processing.

Grade changes other than I to a letter grade must be accompanied by an explanatory memo.

Dissertation Procedures

Procedural rules for dissertations and theses are found in the *WVU Graduate Catalog*.

Dismissal

Dismissal from a graduate or professional program may be based on program and/or professional performance standards other than cumulative grade-point average. Reasons must be based on catalog and other written documents describing academic and professional performance standards and expectations.

Procedures

1. Counseling by departmental committee or representative as soon as possible after discovery of problem.
2. Second counseling by departmental committee or representative after opportunity to improve if performance is not changed sufficiently.
3. Formal review of student status by department or program committee. The formal review will result in one of the following actions:
 - Student retained or recommended for dismissal.
 - Counseling or remediation steps required as a condition of retention.
 - Appeals available if dismissal recommended.

4. A dismissal decision by the dean of the student's school or college may be appealed to the University Conduct/Appeals Committee which will hold a hearing using the following procedures:
 - The student may be advised by a person of his/her choice to assure due process protection not to affect the outcome of the proceedings. The advisor may consult with the student but shall not speak on behalf of the student or participate directly unless granted specific permission by the University Conduct/Appeals Committee.
 - The formal rules of evidence do not apply.
 - The administrative procedure is not adversarial in nature.
 - Witnesses may be presented and examined under oath.
 - An accurate record of the procedure is to be kept. The student may request a transcript of the proceedings at the student's expense.
 - An academic appeals committee has the right to counsel in those proceedings in which the student has retained counsel. Such counsel may not speak on behalf of the institution or otherwise participate directly in the proceedings.
5. A decision for dismissal must be reviewed by the appropriate academic Vice President who may confirm or remand the recommendation with specific instructions.
6. Recommendation for dismissal confirmed by the appropriate academic Vice President may be appealed to the President. The decision of the President is final.

Students' Committees

Doctoral dissertation committees will consist of no fewer than five members, the majority of whom, including the chairperson, will be regular graduate faculty. No more than one person may be a non-member. At least one member of every doctoral committee must be from a department other than the one in which the student is seeking a degree.

Master's committees of programs requiring a thesis will consist of no fewer than three members, the majority of whom will be regular graduate faculty, including the chairperson. No more than one person may be a non-member.

Master's committees of programs not requiring a thesis will consist of no fewer than three members, one of which must be a regular graduate faculty member. No more than one person may be a non-member, and the non-member cannot chair or advise.

Committee approval must be obtained prior to the second semester for a master's degree and prior to the fourth semester for the doctorate. Committee approval for the nursing program is after the third semester.

Committee Approval

All graduate committees are subject to the approval of the school dean or designate and the Health Sciences Center Graduate Programs Office.

Fees

All West Virginia University fees are subject to change. All fees are due and payable to the Controller on the days of registration. Students must pay fees before registration is accepted. Completion of arrangements with the Controller's Office for payment from officially accepted scholarships, loan funds, grants, or contracts shall be considered sufficient for acceptance of registration. Fees paid after regular registration must be paid to the cashier in Stewart Hall.

All students are expected to register on days set apart for registration at the beginning of each semester or summer session of the University. No student will be permitted to register at the University after the eighth day of a semester or the fourth calendar day of the summer sessions or a single summer session. Days are counted from the first day of registration.

Any student failing to complete registration on regular registration days is subject to the Late Registration Fee of \$30.00. Registering students pay the fees shown in the fee charts, plus special fees and deposits as required. No degree is conferred upon any candidate and no transcripts are issued to any student before payment is made of all tuition, fees, and other indebtedness to any unit of the University. It is the policy of West Virginia University to place on restriction students who have outstanding debts to a unit or units of the University. The restriction may include, but is not limited to, the withholding of a student's registration, a student's diploma, or a student's transcript.

Special Fees

Application for Undergraduate Admission

(Resident)	\$15.00
(Nonresident)	35.00
Application for Admission (Dentistry and Medicine)	45.00
Application for Admission (Law or Graduate Studies)	45.00
Diploma Replacement	20.00
Examination for Advanced Standing	35.00
Examination for Entrance Credit, per unit	1.00
General Educational Development Tests (high school level)	15.00
(If the applicant applies for admission to and registers in WVU within twelve months of the date of qualifying for the test, a \$10.00 credit shall be established for the applicant.)	
Graduation	30.00
(Payable by all students at the beginning of the semester or session in which they expect to receive their degrees.)	
Late Registration (non refundable)	30.00
Professional Engineering Degree (includes \$20 Graduation Fee)	35.00
Program Reactivation Fee (Graduate Students)	45.00
Reinstatement of Student Dropped from the Rolls	50.00
Student Identification Card Replacement	10.00
Student's Record Fee	5.00
Official Transcript	5.00
Official Letter	5.00
(Statement of Degree Letter, Grade-Point Average Letter)	8.00
Priority Service (Transcript/Letter)	8.00

Estimated Expenses for Health Sciences Center Programs

These estimated expenses are accurate as of March 1, 1997 and are subject to change. For current accurate tuition costs, please call Admissions and Records at 1-800-344-WVU1. Tuition and registration fees are the same for both semesters. Tuition and registration fees are per semester; other fees are per year.

School and Division	Tuition and Registration*		Instruments	Lab coats, Uniforms, etc.	Books	TOTALS	
	Resident	Nonresident				Residents	Nonresidents
Dentistry							
First Year	\$2,403.00	\$6,477.00	\$4,874.00	\$100.00	\$800.00	\$8,177.00	\$12,251.00
First Summer	917.00	1,772.00	1,594.00	—	400.00	2,911.00	3,766.00
Second Year	2,403.00	6,477.00	2,652.00	100.00	600.00	5,755.00	9,829.00
Second Summer	917.00	1,772.00	280.00	—	—	1,197.00	2,052.00
Third Year	2,403.00	6,477.00	972.00	50.00	275.00	3,700.00	7,774.00
Third Summer	917.00	1,772.00	100.00	—	—	1,017.00	1,872.00
Fourth Year	2,403.00	6,477.00	2,051.00	—	75.00	4,529.00	8,603.00
Dental Hygiene							
Freshman	1,397.00	4,351.00	285.00	25.00	350.00	2,057.00	5,011.00
Sophomore	1,397.00	4,351.00	1,200.00	50.00	300.00	2,947.00	5,901.00
Junior	1,397.00	4,351.00	425.00	100.00	425.00	2,347.00	5,301.00
Senior	1,397.00	4,351.00	500.00	100.00	225.00	2,222.00	5,176.00
Medicine							
First Year	4,190.00	10,357.00	600.00	642.00	950.00	6,382.00	12,549.00
Second Year	4,190.00	10,357.00	—	200.00	800.00	5,190.00	11,357.00
Third Year	4,190.00	10,357.00	—	100.00	450.00	4,740.00	10,907.00
Third Year Summer	136.00	136.00	—	200.00	—	336.00	336.00
Fourth Year	4,190.00	10,357.00	—	—	300.00	4,490.00	10,657.00
Fourth Year Summer	68.00	68.00	—	—	—	68.00	68.00
HSC Graduate Programs							
	1,503.00	4,530.00					
Master of Public Health Program							
	1,753.00	5,027.00					

Estimated Expenses for Health Sciences Center Programs continued

School and Division	Tuition and Registration*		Instruments	Lab coats, Uniforms, etc.	Books	Totals	
	Resident	Nonresident				Residents	Nonresidents
Medical Technology							
Junior	\$1,397.00	\$4,351.00	\$212.00	\$250.00	\$682.00	\$2,541.00	\$5,495.00
Summer	316.00	736.00	—	300.00	180.00	796.00	1,216.00
Senior	1,397.00	4,351.00	—	275.00	—	1,672.00	4,626.00
Physical Therapy							
Summer	68.00	68.00	25.00	90.00	150.00	333.00	333.00
Junior	1,397.00	4,351.00	90.00	—	1,150.00	2,637.00	5,591.00
Summer Rotation	136.00	136.00	—	—	—	136.00	136.00
Senior	1,397.00	4,351.00	—	—	1,150.00	2,547.00	5,501.00
Summer Rotation	136.00	136.00	—	—	—	136.00	136.00
Fall	68.00	68.00	—	—	—	68.00	68.00
Nursing							
Sophomore	1,397.00	4,351.00	60.00	200.00	800.00	2,457.00	5,411.00
Junior	1,397.00	4,351.00	—	—	350.00	1,897.00	4,851.00
Senior	1,397.00	4,351.00	—	150.00	350.00	1,747.00	4,701.00
Pharmacy							
Third Year	1,647.00	4,801.00	—	225.00	450.00	2,322.00	5,476.00
Fourth Year	1,647.00	4,801.00	—	—	400.00	2,047.00	5,201.00
Summer	1,264.00	5,248.00	—	—	—	1,264.00	5,248.00
Fifth Year	1,647.00	4,801.00	—	—	400.00	2,047.00	5,201.00
Graduate Pharmacy	1,669.00	4,971.00	—	—	—	—	—

*Includes (Graduate) \$537.00 (Pharmacy \$678.00) Resident and \$2,244.00 (Pharmacy \$2,585.00) Nonresident or (Undergraduate) \$476.00 (Pharmacy \$651.00) Resident and \$2,165.00 (Pharmacy \$2,415.00) Health Professions Education Fee.

Financial Aid

Students interested in financial assistance must file a Financial Aid Form (FAF) with College Scholarship Service, Box 2700, Princeton, NJ 08540. Forms are available at high schools, from the College Scholarship Service, or the WVU Financial Aid Office. Forms are dated for the appropriate academic year.

Your Guide to Financial Aid-West Virginia University is available at the WVU Financial Aid Offices, Mountainlair, Downtown Campus, and 104 Health Sciences Center. The guide describes available financial aid, application procedures, and estimated educational expenses for attending WVU.

Fees for Off-Campus Courses

Fees for credit hours for off-campus courses are the same as those charged students enrolled in on-campus courses. Off-campus students do not pay the Daily Athenaeum Fee, the Radio Station Fee, or the Mountainlair Construction Fee. However, all students must pay a \$50.00 course fee for each off-campus course taken except for courses offered by the College of Business and Economics, which is \$80.00 per course.

Laboratory Fees

Consult specific departmental sections of this catalog concerning non-refundable deposits and microscope rental fees. Please consult the current schedule of courses for courses with laboratory fees.

Non-Sufficient Funds Check Policy/Service Charge

Payments of tuition, fees, and other charges by check are subject to WVU's Non-Sufficient Funds Check Policy. A copy of the policy is available in the Bursar's Office. A service charge of \$15.00 is collected on each check returned unpaid by the bank upon which it was drawn. The service charge on unpaid returned checks is subject to change in accordance with state law.

Identification Card

An identification card is issued to each full-time student when fees are paid in full. Certain part-time students can be eligible for an identification card when the appropriate fees are paid in full. It admits the owner to certain University athletic events, various activities of student administration, Health Service, and Mountainlair. Confiscation will result from misuse. The University reserves the right to refuse reissuance of an identification card.

Summer Tuition and Fees

<i>Undergraduate Students</i>	<i>Resident</i>	<i>Nonresident</i>
Tuition, per semester hour	\$66.00	\$208.00
Daily Athenaeum Fee*	2.00	2.00
Radio Station Fee*	2.00	2.00
Health, Counseling, and Program Services Fee	36.00	36.00
Mountainlair Construction Fee, per six week summer session or any portion thereof*	19.00	19.00
Student Affairs Fee	10.00	10.00
Transportation Fee	17.00	17.00

*Fee required of all students. (Non refundable unless student withdraws officially before the close of general registration.)

Refund of Fees

A student who officially withdraws from the University or goes from full-time to part-time status within the refund period is eligible for a refund of tuition and fees. Every effort is made to process refunds within 30 days.

To withdraw from the University officially and receive a refund, a student must apply at the Office of Student Life in E. Moore Hall. Tuition, special fees, the optional health service fee, and certain miscellaneous fees are refundable based upon the date of withdrawal and student status.* Lab fees are refundable during the first week of classes only, based upon student status.* Miscellaneous fees that **are not refundable** include the application fee, transcript fee, graduation fee (if graduating), late registration/payment fee, and reinstatement fee.

Exceptions: Students entering the armed services of the United States may be granted full refund of refundable fees (but no course credit) if the call comes before the end of the first three-fourths of the semester. If the call comes after that, full credit for courses may be granted if the student has passing grades at the time of departure.

Students withdrawn due to catastrophic illness or death will be provided a refund as approved by the Dean of Student Life or his/her designee.

To receive a refund for a dropped course, a student must apply at the Office of Admissions and Records. If a student drops below full-time status (12 hours for undergraduates or nine for graduates), tuition, special, and certain miscellaneous fees are refundable based upon the date of the course drops. The optional health fee, application fee, transcript fee, graduation fee, late registration/payment fee, and reinstatement fee are not refundable.

Refund Schedules

Fall/Spring Semesters

Refund Period	BOT	HEA	Refund Period	BOT	HEA
1st Week	90%	90%	5th Week	50%	60%
2nd Week	90%	80%	6th Week	50%	60%
3rd Week	70%	80%	7th/8th Week	—	50%
4th Week	70%	70%	9th Week	—	40%
Subsequent Weeks	0	0			

Refunds for summer sessions are published in the respective *Schedules of Courses*.

*Note: Students who are enrolled for their first semester at WVU or who received a full refund for the previous semester and who received Title IV aid receive refunds according to federal regulations, which require refunds to be figured using both state (BOT Series #22) and statutory pro rata (Higher Education Amendments of 1992) calculations. After figuring both refunds, the calculation that provides the larger refund is given.

Residency Policy

Classification Of Students for Admission and Fee Purposes

Section 2. Classification for Admission and Fee Purposes

2.1 Students enrolling in a West Virginia public institution of higher education shall be assigned a residency status for admission, tuition, and fee purposes by the institutional officer designated by the president. In determining residency classification, the issue is essentially one of domicile. In general, the domicile of a person is that person's true, fixed, permanent home and place of habitation. The decision shall be based upon information furnished by the student and all other relevant information. The designated officer is authorized to require such written documents, affidavits, verifications, or other evidence as is deemed necessary to establish the domicile of a student. The burden of establishing domicile for admission, tuition, and fee purposes is upon the student.

2.2 If there is a question as to domicile, the matter must be brought to the attention of the designated officer at least two weeks prior to the deadline for the payment of tuition and fees. Any student found to have made a false or misleading statement concerning domicile shall be subject to institutional disciplinary action and will be charged the nonresident fees for each academic term theretofore attended.

2.3 The previous determination of a student's domiciliary status by one institution is not conclusive or binding when subsequently considered by another institution; however, assuming no change of facts, the prior judgment should be given strong consideration in the interest of consistency. Out-of-state students being assessed resident tuition and fees as a result of a reciprocity agreement may not transfer said reciprocity status to another public institution in West Virginia.

Section 3. Residence Determined by Domicile

3.1 Domicile within the State means adoption of the State as the fixed permanent home and involves personal presence within the State with no intent on the part of the applicant or, in the case of a dependent student, the applicant's parent(s) to return to another state or country. Residing with relatives (other than parent(s)/legal guardian) does not, in and of itself, cause the student to attain domicile in this State for admission or fee payment purposes. West Virginia domicile may be established upon the completion of at least twelve months of continued presence within the State prior to the date of registration, provided that such twelve months' presence is not primarily for the purpose of attendance at any institution of higher education in West Virginia.

Establishment of West Virginia domicile with less than twelve months' presence prior to the date of registration must be supported by evidence of positive and unequivocal action. In determining domicile, institutional officials should give consideration to such factors as the ownership or lease of a permanently occupied home in West Virginia, full-time employment within the State, paying West Virginia property tax, filing West Virginia income tax returns, registering of motor vehicles in West Virginia, possessing a valid West Virginia driver's license, and marriage to a person already domiciled in West Virginia. Proof of a number of these actions shall be considered only as evidence which may be used in determining whether or not a domicile has been established.

Factors militating against the establishment of West Virginia domicile might include such considerations as the student not being self-supporting, being claimed as a dependent on federal or state income tax returns or the parents' health insurance policy if the parents reside out of state, receiving financial assistance from state student aid programs in other states, and leaving the State when school is not in session.

Section 4. Dependency Status

4.1 A dependent student is one who is listed as a dependent on the federal or state income tax return of his/her parent(s) or legal guardian or who receives major financial support from that person. Such a student maintains the same domicile as that of the parent(s) or legal guardian. In the event the parents are divorced or legally separated, the dependent student takes the domicile of the parent with whom he/she lives or to whom he/she has been assigned by court order. However, a dependent student who enrolls and is properly classified as an in-state student maintains that classification as long as the enrollment is continuous and that student does not attain independence and establish domicile in another state.

4.2 A nonresident student who becomes independent while a student at an institution of higher education in West Virginia does not, by reason of such independence alone, attain domicile in this State for admission or fee payment purposes.

Section 5. Change of Residence

5.1 A person who has been classified as an out-of-state student and who seeks resident status in West Virginia must assume the burden of providing conclusive evidence that he/she has established domicile in West Virginia with the intention of making the permanent home in this State. The intent to remain indefinitely in West Virginia is evidenced not only by a person's statements, but also by that person's actions. In making a determination regarding a request for change in residency status, the designated institutional officer shall consider those actions referenced in Section 2 above. The change in classification, if deemed to be warranted, shall be effective for the academic term or semester next following the date of the application for reclassification.

Section 6. Military

6.1 An individual who is on full-time active military service in another state or foreign country or an employee of the federal government shall be classified as an in-state student for the purpose of payment of tuition and fees, provided that the person established a domicile in West Virginia prior to entrance into federal service, entered the federal service from West Virginia, and has at no time while in federal service claimed or established a domicile in another state. Sworn statements attesting to these conditions may be required. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

6.2 Persons assigned to full-time active military service in West Virginia and residing in the State shall be classified as in-state students for tuition and fee purposes. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

Section 7. Aliens

7.1 An alien who is in the United States on a resident visa or who has filed a petition for naturalization in the naturalization court, and who has established a bona fide domicile in West Virginia as defined in Section 3 may be eligible for in-state residency classification, provided that person is in the State for purposes other than to attempt to qualify for residency status as a student. Political refugees admitted into the United States for an indefinite period of time and without restriction on the maintenance of a foreign domicile may be eligible for an in-state classification as defined in Section 3. Any person holding a student or other temporary visa cannot be classified as an in-state student.

Section 8. Former Domicile

8.1 A person who was formerly domiciled in the state of West Virginia and who would have been eligible for an in-state residency classification at the time of his/her departure from the state may be immediately eligible for classification as a West Virginia resident provided such person returns to West Virginia within a one-year period of time and satisfies the conditions of Section 3 regarding proof of domicile and intent to remain permanently in West Virginia.

Section 9. Appeals

At a minimum, such procedures shall provide that:

9.1 Each institution shall establish procedures which provide opportunities for students to appeal residency classification decisions with which they disagree. The decision of the designated institutional official charged with the determination of residency classification may be appealed in accordance with appropriate procedures established by the president of the institution. At a minimum, such procedures shall provide that:

9.1.1 An institutional committee on residency appeals will be established to receive and act on appeals of residency decisions made by the designated institutional official charged with making residency determinations.

9.1.1a The institutional committee on residency shall be comprised of members of the institutional community, including faculty and student representatives, and whose number shall be at least three, in any event, an odd number. The student representative(s) shall be appointed by the president of the institutional student government association while the faculty representative(s) shall be selected by the campus-wide representative faculty organization.

9.1.1b The student contesting a residency decision shall be given the opportunity to appear before the institutional committee on residency appeals. If the appellant cannot appear when the committee convenes a meeting, the appellant has the option of allowing committee members to make a decision on the basis of written materials pertaining to the appeal or waiting until the next committee meeting.

9.1.2 The residency appeal procedures will include provisions for appeal of the decision of the institutional committee on residency appeals to the president of the institution.

9.1.3 Residency appeals shall end at the institutional level.

School of Dentistry

Robert N. Moore, D.D.S., Ph.D., Ed.D.; Dean

William R. McCutcheon, D.D.S., Associate Dean, Academic and Postdoctoral Affairs

Henry J. Bianco, D.D.S., Associate Dean, Clinical Affairs and Facilities

James E. Overberger, D.D.S., Associate Dean, Continuing Education

Frank H. Stevens, D.D.S., Assistant Dean, Alumni /Public Affairs and Recruitment

Degrees Offered:

D.D.S. in Dentistry

M.S. in Dental Specialties

M.S. in Dental Hygiene; B.S. in Dental Hygiene

Historical Background

The School of Dentistry was established by an act of the West Virginia Legislature on March 9, 1951, and the first class began studies in September, 1957. The 23 members of that class graduated in 1961, receiving the first dental degrees awarded in West Virginia. More than 200 students are now enrolled in the accredited dental program. In September, 1961, the first students were enrolled in the school's degree program in dental hygiene and were graduated in 1965.

Mission

- To provide the people of West Virginia with an oral health center for education, research and service activities.
- To contribute to and improve the dental health of all people, especially the citizens of West Virginia.

The School of Dentistry of West Virginia University offers degrees of doctor of dental surgery, masters of science in dental specialties and dental hygiene, and bachelor of science in dental hygiene. The Department of Oral and Maxillofacial Surgery offers one four-year residency. Seven general practice residencies and three advanced education in general dentistry residencies are also offered. Programs leading to the master of science and doctor of philosophy degrees are available in the associated basic sciences. Continuing education courses for dentists and auxiliaries are offered throughout the year on a wide variety of dental topics.

Accreditation

All programs are accredited by the Commission on Dental Accreditation of the American Dental Association.

Administration

Administration of the School of Dentistry is the responsibility of the dean. He is aided in this function by two associate deans, two assistant deans, three directors, and the clinical and Health Sciences Center chairpersons. This administrative group, the Faculty Council, serves in an advisory capacity to the dean in carrying out the established policies of the School of Dentistry and of the University.

Dental Clinic

Clinical training and experience constitute a major part of the curriculum for dental and dental hygiene students. Facilities for dental and dental hygiene students include 160 treatment cubicles and all necessary related laboratories. The students treat their assigned patients under close supervision of faculty and receive practical experience while rendering service to thousands of patients annually.

Books and Instruments

Dental students are required to obtain necessary textbooks for the scheduled courses and special instruments for use in the various laboratories and clinics. Lists of approved instruments and books will be provided at the time of registration, and these supplies will be made available through University services. Official authorization is essential in the purchase of all instruments and books used in dental courses. All dental students must maintain a library of required textbooks through graduation. Used instruments and equipment are not acceptable.

Organizations

American Student Dental Association. Predoctoral and advanced education dental students are eligible to become members of the American Student Dental Association. Membership provides for student membership in the American Dental Association.

American Association of Dental Research. All dental and auxiliary students, including advanced education students, are eligible to become student members of the American Association of Dental Research during the period of enrollment in the School of Dentistry.

American Association of Dental Schools. All dental and auxiliary students, including advanced education students, are eligible to become student members of the American Association of Dental Schools during the period of enrollment in the School of Dentistry.

American Association of Women Dentists. The objectives and purposes of the West Virginia University School of Dentistry Chapter of the American Association of Women Dentists are to offer opportunities for personal growth through association with women in our profession, support the goals of the American Association of Women Dentists, aid in the advancement of women in dentistry, promote professional support and cooperation among its members, and promote the fundamentals of good oral health.

Academy of Dentistry for the Handicapped. The Academy of Dentistry for the Handicapped is an international organization for dental students and hygiene students interested in management and treatment of special care patients. Community services are provided by assisting with Special Olympics and presenting disability awareness programs to area grade schools. Guest speakers are sponsored on topics such as: "Managing the Hearing Impaired Patient in the Dental Office," "Use of Restraint in Treating Handicapped Patients," and "Child Abuse and Neglect in Special Needs Children."

WVU School of Dentistry Alumni Association. In a series of meetings held during May, 1961, the first senior class of the School of Dentistry established the WVU School of Dentistry Alumni Association. The association promotes the educational program of the School of Dentistry. Full membership is

extended to all graduates of the school, and associate memberships are available to others interested in the aims of the association.

Omicron Kappa Upsilon. On February 6, 1961, the Alpha Beta Chapter of Omicron Kappa Upsilon, national honorary dental society, was chartered at the School of Dentistry. Student membership is limited to 12 percent of each senior class. Candidates are from the academically superior 20 percent.

Dental Fraternities. Chapters of two national dental fraternities, Delta Sigma Delta and Psi Omega, are active at the School.

The American Dental Hygienists' Association is the official organization representing the dental hygiene profession. Student dental hygienists have the opportunity of student membership in the association.

Sigma Phi Alpha is the national dental hygiene honorary society. Student membership is limited to 10 percent of each graduating class. Candidates are selected on the basis of scholarship, character, and potential as a dental hygienist.

Doctor of Dental Surgery (D.D.S.)

The profession of dentistry offers many career opportunities. In addition to the general practice of dentistry, specialty practice areas may be pursued by further study. The fields of dental education and research provide the opportunity for satisfying and interesting careers. Men and women entering the dental health care delivery system find that they play an important role in the exciting and challenging world of the modern health sciences.

Because of the large number of applicants and limited openings available, preference in admissions is given to qualified West Virginians although outstanding nonresident applicants are considered. Nonresident applicants should have a grade-point average of 3.0 or above and an average score on the Academic and PAT sections of the Dental Admission Test of at least 15–15. Economically or culturally disadvantaged students (especially if they are West Virginia residents) are encouraged to apply.

Admission Requirements

Admission to the WVU School of Dentistry is contingent upon satisfactory completion of all admission requirements, appropriate completion of all application instructions, submission of all transcripts from each college attended, personal interview, and satisfactory completion of all courses taken before the time of registration in dental school (includes courses taken during the summer session immediately preceding initial enrollment).

Application for admission in the fall of 1997 should be made promptly upon completion of the 1995-96 school year, even if the applicant has not completed all the requirements as listed.

A candidate for the D.D.S. degree must have abilities and skills of five varieties including observation; communication; motor; conceptual; integrative and quantitative; and behavioral and social. Technological compensation can be made for some handicaps in certain of these areas, but a candidate should be able to perform in a reasonably independent manner. For further details consult the WVU School of Dentistry Technical Standards Document available in the School of Dentistry Student Affairs Office.

Applicants for admission must present evidence of having successfully completed three or more academic years of work in liberal arts in an accredited college. The prerequisites for admission include:

	Semester Hours
English Composition and Rhetoric, or equivalent	6
Zoology or Biology (with laboratory)	8
Inorganic Chemistry (with laboratory)	8
Organic Chemistry (with laboratory)	8
Physics (with laboratory)	8

Courses in comparative anatomy, embryology, and biochemistry are strongly recommended. In addition, courses in the humanities and the social sciences are suggested in order to acquire a broadened intellectual background for both the study and practice of dentistry.

The School of Dentistry participates in the American Association of Dental Schools Application Service (AADSAS). All applications are processed by that organization. Application request cards are available at the Office of Admissions and Records, 1170 Health Sciences North, P.O. Box 9815, Robert C. Byrd Health Sciences Center of WVU, Morgantown, WV 26506-9815. Request cards should be submitted to AADSAS as promptly as possible. The deadline for submission of a completed AADSAS application to the AADSAS office, for admission to the West Virginia University School of Dentistry, is March 1. This deadline is deliberately and explicitly discussed in the AADSAS instruction booklet; applicants should review them carefully. Since deadline dates are so important, you are strongly urged to give this part of the application procedure your strict attention.

Each applicant is required to complete the Dental Admission Test satisfactorily. The test should be taken in April before making application in June. This test is given at testing centers throughout the United States and its possessions, and in Canada. Application cards may be secured by writing to: Division of Testing, Council on Dental Education, 211 E. Chicago Ave., Chicago, IL 60611.

Final acceptance of a student is contingent upon satisfactory completion of all requirements.

Degree Requirements

Candidates for graduation are recommended by the faculty of the School of Dentistry to the Board of Trustees for its approval and for the conferring of the degree of doctor of dental surgery (D.D.S.), provided they fully meet the following conditions:

- Shall have been in regular attendance in the School of Dentistry for the academic period prescribed for each student.
- Shall have completed the prescribed curriculum for each of the academic sessions.
- Shall have shown good moral character and shall have demonstrated a sense of professional responsibility in the performance of all assignments as a student.
- Shall have met in full all financial obligations to the University.

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession.

Curriculum

The basic required courses in the curriculum are presented throughout eight semesters and four summer sessions. However, students may qualify to receive their diploma at the May convocation of their fourth year. During this time all students are enrolled in courses designed primarily to prepare them for the general practice of dentistry. Throughout the program overall student progress is continually monitored by the Committee on Academic Standards. Upon satisfactory completion of the first semester of the third year, the student is provided the opportunity to indicate a specific interest in a fourth-year curriculum track. Available tracks are the general practice track, basic biologic science track, specific clinical interest track, and rural practice track. Upon satisfactory completion of the second semester of the third year, the faculty advisor and the student prepare a specific individualized curriculum for the fourth year. This aspect of the dental curriculum provides the opportunity for the student to pursue areas of special interest through the appropriate track, while continuing to develop competency in all clinical disciplines. In addition to the required courses, fourth-year students are required to register for at least one hour of electives during each semester.

At the present time, a number of state boards of dentistry require evidence of participation in continuing education for license renewal. In addition, a significant number of state associations require similar evidence for continued membership in good standing. Consequently, fourth-year electives provide the opportunity for students to pursue areas of special interest and, at the same time, they serve as a means of encouraging students to continue their education throughout their professional careers.

The individualized curriculum developed by the student and faculty advisor must be approved by the associate dean for academic affairs. The student will pursue the approved curriculum through completion of the D.D.S. program. Additional requirements include participation in mock board examinations and one month of remote-site training by fourth-year students. Furthermore, students must satisfactorily complete all courses for which they have registered.

Promotion

At the end of each grading period (i.e., each academic semester or session) all students will have their individual progress reviewed by the academic standards committee convened for their class. The progress of each student in the curriculum is governed by a set of minimum acceptable performance standards upon which the academic standards committee bases its decisions.

The standards consist of three categories: scholastic performance; clinic utilization; and professional development. Scholastic performance requires that each student must earn a specified grade-point average to be promoted to the succeeding year. Clinic utilization requires that each student must utilize a specified percentage of available clinic time to demonstrate steady progress toward attainment of clinical competency. Professional development is an important component of the study of dentistry. The criteria for determining this development are based on the student's personal behavior and patient management.

These performance standards are explained in detail in the document entitled *WVU School of Dentistry Academic and Professional Standards*. All first-year students are presented this document prior to entering school and are required to acknowledge by their signature that they have read and accepted the conditions set by the material contained therein. At the completion of each academic term, following the Committee on Academic Standards meetings, the status of each student is reported to the dean and Faculty Council. The committee may recommend that a student be promoted unconditionally, be promoted on probation, be allowed to make up deficiencies, be given the opportunity to repeat the year, or be suspended or dismissed from further studies in the School of Dentistry. Final disposition in each case is the prerogative of the Committee on Academic Standards and the dean.

School of Dentistry Course Schedule

First Year

Didactic Courses	Hours	Sem.1	Sem.2	S
300 Anesthesiology	1			x
303 Oral Diagnostic Techniques	2			x
304 Operative Dentistry	4		x	
305 General Biochemistry	4		x	
324 Gross Anatomy	7		x	
309 Microanatomy and Organology	5	x		
310 Dental Anatomy and Occlusion	6	x	x	
311 Periodontics	2			x
312 Dental Materials	3	x		
313 Removable Prosthodontics	3	x		
314 Fixed Prosthodontics	1			x
315 Periodontics	2	x	x	
316 Removable Prosthodontics	1			x
317 Removable Prosthodontics	1		x	
318 Oral Histology and Embryology	2	x		
319 Pediatric Dentistry	1		x	
320 Community Dentistry	1	x		
322 Operative Dentistry	2			x
345 Principles of Orthodontics	1		x	

Second Year Didactic Courses

302 Microbiology	5	x		
321 Endodontics	2		x	
323 Clinic Orientation	0	x	x	
325 Practice Management	1		x	
327 Oral Radiology	1	x		
328 General Pathology	5	x	x	
329 Operative Dentistry	2	x		
331 Dental Anatomy and Occlusion	2			x
332 Periodontics	1		x	
333 Physical Diagnosis	1		x	
334 Removable Prosthodontics	3	x	x	
335 Pediatric Dentistry	2	x	x	
336 Fixed Prosthodontics	6	x	x	
337 Oral Diagnosis	1		x	
338 Oral Pathology	3		x	
339 Oral Surgery	1		x	
340 Periodontics	1	x		
341 Removable Prosthodontics	2			x
342 Periodontics	1		x	

343	Fundamentals of Physiology	5	x		
344	Diagnosis and Treatment Planning	1		x	
346	Orthodontic Technics	2			x
348	Operative Dentistry	1			x
349	Hospital Dentistry	1			x
Second Year Clinical Courses					
375	Dental Practice Management	1-6			x
376	Removable Prosthodontics	1-6			x
377	Periodontics	1-6			x
380	Endodontics	1-6			x
383	Operative Dentistry	1-6			x
384	Oral Surgery	1-6			x
386	Pediatric Dentistry	1-6			x
387	Clinical Oral Diagnosis	1-6			x
389	Fixed Prosthodontics	1-6			x
396	Clinical Oral Radiology	1-6			x
Third Year Didactic Courses					
330	Community Dentistry	1		x	
347	Management of Medical/Dental Emergencies	1		x	
350	Removable Prosthodontics	1	x		
351	Dental Anatomy & Occlusion	1		x	
352	Community Dentistry	2	x	x	
353	Oral Pathology	2	x		
355	Clinic-Pathologic Correlation Conference	1	x		
357	Fixed Prosthodontics	2	x	x	
359	Oral Surgery	2	x	x	
360	Pharmacology	4	x		
361	Pediatric Dentistry	1	x		
363	Periodontics	2	x	x	
365	Orthodontics	1		x	
366	Pediatric Dentistry	1		x	
369	Practice Management	1		x	
371	Practice Management	2	x		
374	Principles of Medicine	2	x		
Third Year Clinical Courses					
375	Practice Management	1-6	x	x	x
376	Removable Prosthodontics	1-6	x	x	x
377	Periodontics	1-6	x	x	x
380	Endodontics	1-6	x	x	x
381	Patient Management	1-6	x	x	x
383	Operative Dentistry	1-6	x	x	x
384	Oral Surgery	1-6	x	x	x
385	Orthodontics	1-6	x	x	x
386	Pediatric Dentistry	1-6		x	x
387	Clinical Oral Diagnosis	1-6	x	x	x
389	Fixed Prosthodontics	1-6	x	x	x
396	Clinical Oral Radiology	1-6	x	x	x
Fourth Year Didactic Courses					
354	Introduction to Dental Implants	1		x	
356	Removable Prosthodontics	1	x		
358	Operative Dentistry	2		x	
362	Endodontics	1	x		
364	Pain and Anxiety Control	1	x		
370	Community Dentistry	1		x	
378	Practice Management-Law	1	x		
379	Practice Management-Ethics	1		x	

Fourth Year Clinical Courses

375 Practice Management	1-3	x	x	x
376 Removable Prosthodontics	1-6	x	x	x
377 Periodontics	1-5	x	x	x
380 Endodontics	1-4	x	x	x
381 Patient Management	1-6	x	x	x
383 Operative Dentistry	1-8	x	x	x
384 Oral Surgery	1-3	x	x	x
385 Orthodontics	1-6	x	x	x
387 Clinical Oral Diagnosis	1-6	x	x	x
389 Fixed Prosthodontics	1-6	x	x	x
394 Community Dentistry	1	x	x	x
396 Clinical Oral Radiology	1-6	x	x	x
391 Special Topics	1-15	x	x	x

The relationship of the number of elective and/or required hours during the fourth year may vary, depending upon each student's progress.

Dental Hygiene

Barbara Komives, Director

Degree: Bachelor of Science in Dental Hygiene

Dental hygiene, a division of the School of Dentistry, offers a four-year curriculum leading to a B.S. in dental hygiene. The program is, in part, based in the liberal arts, but it is also a thoroughly professional education. The format of the curriculum is not conventional, in that it includes courses from many academic disciplines. The program prepares students through classroom and practical experiences.

Program Goals

- Preparation of individuals to perform to the level of competency specified by the faculty, the state boards of dental examiners, and employers (those oral health services legally approved for a dental hygienist in any state, district, or territory of the United States). Presently these services include: observation, recording, prevention, treatment, education, and communication.
- Preparation of individuals capable of performing the clinical skills delegated to any allied dental personnel (excluding the dental laboratory technician).
- Preparation of dental hygienists to teach clinical skills and didactic information in allied dental education programs.
- Preparation of individuals capable of performing coordinative and administrative functions in public health, hospitals, and community related areas in urban and rural settings.
- Preparation of dental hygienists who have a keen sense of social awareness and personal and professional ethics.
- Preparation of dental hygienists to continue their professional development beyond graduation through continuing education, advanced studies, self study, independent thought, and graduate endeavors.
- Preparation of dental hygienists who have the capability to understand and adapt to new developments and changes in science, technology, and practice of comprehensive health care.
- Provision of an educational foundation for advanced studies.

- Provision of the degree completion option to allow students holding an associates degree/certificate in dental hygiene to obtain a Bachelor of Science in Dental Hygiene.

Admission

To get application and reference forms, please write to the Division of Dental Hygiene, P.O. Box 9425, West Virginia University, Morgantown, WV 26506-9425, or to the Office of Admissions, Health Sciences Center, P.O. Box 9815, West Virginia University, Morgantown, WV 26506-9815. As soon as possible in the year preceding the year you want to enter the program, you should apply and complete the aptitude tests. Forms for the following year are available in September.

If you have no previous study in higher education, you will apply for admission as a freshman at WVU. You must have a diploma from an accredited high school or preparatory school, and we expect you to have these courses listed on your high school transcript:

English—4 units	Algebra—2 units	Plane geometry—1 unit
Biology—1 unit	Chemistry—1 unit	

We pay particular attention to scholastic achievement in science courses. We also expect applicants to rank in the upper one half of their graduating class. Physical strength with the ability to sit and stand as required, fine precision bilateral manipulative hand/motor skills, adequate visual acuity, eye/hand/foot coordination and emotional stability are essential characteristics for individuals who wish to enter and continue in the dental hygiene program. They must meet other medical qualifications as required. Reasonable accommodation will be considered for students with special needs.

We require that you take the American College Testing Program examination or the Scholastic Aptitude Test. We ask for personal references, to be submitted on our reference form. All three references must be sent by the writer of the reference directly to the Division of Dental Hygiene. The Dental Hygiene Admissions Committee reviews all applications and may require you to come to the campus for a personal interview. If the committee requests an interview, you will receive a letter stating the date, time, and place of the interview. Competition for admission to our program is intense, and we give preference to residents of West Virginia.

Degree Completion Program

If you are a registered dental hygienist, we can admit you directly to the Division of Dental Hygiene as a full-time or as a part-time student. To be eligible for the degree completion program, you must have a certificate or associate degree from an accredited dental hygiene program. You can transfer lower division credits (see "Dental Hygiene Suggested Curriculum"). Your acceptance and placement in the program depends upon your academic record and upon the number of spaces available.

When you apply, we ask you to include complete records of previous study. In addition to an official transcript mailed to us by the registrar of your previous school, we ask you to include catalog descriptions of the courses taken. If you are currently enrolled in a certificate or associate degree program, we ask that you include your program of study. You are responsible for the submission of complete records.

You can enter the degree completion program twice a year. Applications can be obtained after September 1 of the year preceding application to the program.

Requirements

To summarize the admission process for the degree completion program:

- Complete the accredited certificate/associate degree program in which you are currently enrolled or offer proof of a previously completed program.
- Present at least a 2.5 grade-point average for all college work attempted. If your grade-point average is below our minimum, you can petition the Dental Hygiene Admissions Committee for special consideration.
- Successfully complete the Dental Hygiene National Board Examination and submit your score.
- Submit two letters of reference, one from the director of your previous program and one from a clinical instructor. If you have professional experience, substitute a letter from your employer for either of the above.

The Admissions Committee may ask you to come for a personal interview before they make a final decision on your application.

Dental Hygiene Academic Standards and Policies

At the end of every semester, the Dental Hygiene Committee on Academic Standards reviews the status of every student in the program. The committee recommends promotions, probation or dismissal to the Dean of the School of Dentistry.

If the students fulfill all course requirements, meet all professional standards, and have the necessary grade point averages, promotion is unconditional.

1. Students must maintain a cumulative and dental hygiene/science grade point average of 2.0 or better.
2. A grade of "F" in dental hygiene/science course or failure to attain a 2.0 cumulative or dental hygiene/science grade point average in any semester will result in placing a student on probation.
3. Students on probation who do not raise their cumulative or dental hygiene/science grade point average to 2.0 or better after one semester, may be dismissed from the Dental Hygiene Program.
4. A student who receives a grade of D, F, or WU in a required dental hygiene/science course must repeat that course. Courses may only be repeated ONCE. Failure to earn a grade of C or better may result in dismissal from the Dental Hygiene Program.
5. A student may repeat only THREE dental hygiene/science courses throughout the course of the curriculum.
6. Dental hygiene/science pre-requisite courses in which students earn a grade of D, F, or WU must be repeated prior to the student's progression to the next course in that sequence.

The dental hygiene/science average is based on grades earned in these courses or their equivalents: Anatomy 101; Anatomy 109: Biology 2 and 4; Chemistry 11 and 12; Dentistry 300; Microbiology 26; Pathology 128 and 129; Pharmacology and Toxicology 160; Physiology 141; and all Dental Hygiene courses.

The Division of Dental Hygiene reserves the right to dismiss or require remedial work of any student who does not perform at a level of satisfactory for patient care.

Dental Hygiene Suggested Curriculum

First Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
ORIN 2D	1	BIOL 2	3
ENGL 1	3	BIOL 4	1
Cluster B (Comm 11-12)	3	CHEM 12	4
DTHY 66 <i>Tech Literature</i>	1	DTHY 85 <i>Oral Anatomy</i>	3
MATH 3	3	HN&F 71 <i>Intro. Nutrition</i>	3
CHEM 11	4	Cluster B (Psych 1)	3
DTHY 1	2	Total	17
Total	17		

Second Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
ANAT 101	4	PSIO 141	4
Cluster B (Soc. 1)	3	DTHY 90 <i>Oral Histology</i>	3
DTHY 105		PCOL 160	3
<i>Theory & Pract. of Prevent.</i>	2	DTHY 125 <i>Dent.Hy. Technics</i>	4
MBIM 26	4	ENGL 2	3
Cluster A	3	DTHY 120 <i>Dent. Nrsg. Technics</i>	1
Cluster B (Psych. 141)	3	Elective Summer:	1
Total	19	DTHY Clinic 220	1
		Total	19

Third Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
DTHY 168 <i>Periodont. 1</i>	1	DTHY 169 <i>Periodont. 2</i>	2
PATH 128	2	DTHY 174 <i>Teaching Methods</i>	2
DTHY 152 <i>Dent. Radiol.</i>	2	PATH 129	3
ANES 300	1	DTHY 161 <i>Expanded Functions</i>	2
DTHY 172 <i>Public Health</i>	2	Cluster A	3
DTHY 160 <i>Dent. Materials</i> ...	3	DTHY 150 <i>Dent. Health Ed. (w)</i>	3
DTHY 162 <i>Clin. Methods</i>	2	DTHY 164 <i>Clin. Dent. Hy.</i>	2
DTHY 163 <i>Clin. Dent. Hy.</i>	2	DTHY 153 <i>Dental Radiology</i>	1
DTHY 180 <i>Rural Health</i>	2	Total	18
Total	17		

Summer: 1 Rural Health 181 3

Fourth Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
DTHY 204 Adv. Clin. Meth. ...	1	DTHY 206 Adv. Clin. DH.....	3-4
DTHY 205 Adv. Clin. DH	4	DTHY 207 Adv. Clin Meth.....	1
DTHY 202 Dent. Hy. Pract. ..	2	DTHY 251 Dent. Health Ed. III.....	2
DH Electives	2	DH Electives.....	3
Cluster A*.....	3	Cluster A	3
DTHY 250 DH Ed. II	2	Total	12-13
Total	14		

DH Elect. 3-4 hours elective credits in Dental Hygiene during the fourth year.

Advanced Education Programs

The Divisions of Dental Hygiene and Endodontics and the Department of Orthodontics offer programs of advanced study leading to the degree of master of science (M.S.). The Department of Oral and Maxillofacial Surgery offers one four-year residency. Seven general practice and two advanced education in general dentistry residencies are also offered. Continuing education courses are offered throughout the year. Detailed information concerning admission requirements, courses of study, etc., in these programs may be obtained from the Office of the Associate Dean for Academic and Postdoctoral Affairs, WVU School of Dentistry, Morgantown, WV 26506.

Master of Science

Major in Dental Hygiene

The School of Dentistry and its Division of Dental Hygiene offer a program of advanced study and specialized training leading to the degree of master of science. This program requires a minimum of 36 semester hours through full-time or part-time enrollment in the School of Dentistry. It is designed to qualify dental hygienists for careers in teaching, administration, research and management.

Options for concurrent masters degrees in the areas of community health or health care administration are also available.

Inquiries concerning this program should be directed to the Office of the Associate Dean for Academic and Postdoctoral Affairs, School of Dentistry. Applications should be filed by July 1 for fall admission and by November 1 for spring enrollment.

Admission Requirements

- Graduation with a baccalaureate degree in dental hygiene from an accredited dental hygiene program or graduation with a baccalaureate degree in another field of study from an approved institution of higher education while holding a certificate or associate degree in dental hygiene from a program fully accredited by the American Dental Association Commission on Dental Accreditation
- Evidence of scholastic and clinical achievement to indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade-point average of 2.5 is required

- Completion of one of these standardized tests: the Graduate Record Examination (GRE) general aptitude test with a score of 1,000 or above, or the Miller's Analogy Test with a score of 50 or above
- Submission of all information requested in the graduate application to the office of the associate dean for academic and postdoctoral affairs.

Degree Requirements

- Completion of a minimum of 36 semester credit hours: 23 required credit hours and 13 elective credit hours tailored to meet the student's personal and professional goals. Elective courses are taught by a number of schools within the University and are categorized into four basic focus areas: Education/Administration, Management, Special Patient Care, and Basic Sciences. An individualized program will be devised for each student with a maximum of six hours in research leading to an acceptable thesis. Oral defense of the thesis is required.
- Achievement of a 3.0 GPA or an overall academic average of at least B in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.
- Removal of all conditions, deficiencies and incomplete grades. Credit hours for courses with a grade lower than C do not count toward degree requirements.

M.S. Curriculum

	Credit Hours
ED P 311 <i>Statistical Methods</i>	3
ED P 330 <i>Foundations of Educational Measurement</i>	3
DTHY 380 <i>Seminar Critical Issues in Health Care</i>	3
DTHY 381 <i>Seminar Expanded Functions</i>	3
DENT 391 <i>Advanced Topics</i>	2
DTHY 385 <i>Research Methods for the D.H.</i>	3
DTHY 397 <i>Research (Thesis)</i>	6
Total	23

Elective Area(s) of Dental Hygiene Focus 13

Dental Hygiene 391 and Dentistry 391 courses and Courses offered by the Colleges of Business and Economics and Human Resources and Education, the School of Medicine's Department of Community Health, and the Multidisciplinary Studies program.

Total..... 36

Master of Science Specialization in Endodontics

The School of Dentistry and its Division of Endodontics offer a program of advanced study and clinical training leading to the degree of master of science (M.S.). The program requires a minimum of 24 months (two academic years and two summer sessions) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in endodontic clinical practice, teaching, and research.

Inquiries concerning this program should be directed to the office of the associate dean for academic and postdoctoral affairs. Applicants will be processed in the School of Dentistry. Applicants approved for admission to the program will be notified soon after December 1.

Admission to the Endodontic Program

- Graduation from an accredited school of dentistry.
- Evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature.

Each applicant must file with the Division of Endodontics all information requested in the departmental application form.

Requirements for Degree

- Fulfillment of general WVU graduate study requirements.
- Twenty-four months (two academic years and two summer sessions) of consecutive residency at the WVU School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to endodontics. A certificate will be awarded only upon satisfactory completion of the research and thesis.
- Satisfactory completion of a final oral examination.
- Completion of a minimum of 63 credit hours. These include 32 hours of endodontic courses, a minimum of 22 hours of selected basic sciences subjects, two hours of teaching practicum, and a thesis.
- Demonstration of satisfactory clinical competency in the student's field.
- Achievement of a 3.0 GPA or an overall academic average of at least a B in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

Master of Science Specialization in Orthodontics

The School of Dentistry and its Department of Orthodontics offer a program of advanced study and clinical training leading to the degree of Master of Science (M.S.). The program generally requires 36 months (three academic years and two summers) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in orthodontic clinical practice, teaching, and research. Inquiries concerning this program should be directed to the office of the associate dean for academic and postdoctoral affairs. Those applicants approved for admission to the program will be notified December 1.

Requirements for Admission to the Orthodontic Program

- Graduation from an accredited dental school.
- Evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade-point average of 3.00 is required for admission.
- Each applicant must file with the department all information requested in the department application form.

Requirements for Degree of Master of Science

- Fulfillment of general WVU graduate study requirements.
- Thirty-six months (three academic years and two summers) of residency at the School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to orthodontics.
- Satisfactory passage of a final oral examination.
- Completion of a minimum of 74 credit hours. These include 46 hours of orthodontic courses, a minimum of 13 hours of selected basic sciences subjects, two hours of teaching practicum, and a thesis (13 hours).
- Demonstration of satisfactory clinical competence in the student's field.
- Achievement of a 3.0 GPA or an overall academic average of at least a B in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

School of Medicine

Robert M. D'Alessandri, M.D., Dean

John F. Brick, M.D., Associate Dean, Hospital Affairs

Shawn A. Chillag, M.D., Assistant Dean, Student Affairs and Curriculum,
Charleston Division

Anthony DiBartolomeo, M.D., Associate Dean, Clinical Affairs

Norman D. Ferrari, M.D., Associate Dean, Ambulatory Services

James K. Hackett, M.B.A., Associate Dean, Finance and Administration

George A. Hedge, Ph.D., Associate Dean, Research and Graduate Studies

Michael J. Lewis, M.D., Ph.D., Associate Dean, Charleston Division

Mary Beth Mandich, Ph.D., Associate Dean for Allied Health

James M. Shumway, Jr., M.D., Ph.D., Associate Dean, Educational Programs

James Stevenson, M.D., Associate Dean, Development and Continuing

Medical Education

John W. Traubert, M.D., Associate Dean, Student and Curricular Affairs

Degrees Offered:

M.D. in Medicine

M.S., Ph.D. in Anatomy

M.S., Ph.D. in Biochemistry (Medical)

M.S., Ph.D. in Microbiology and Immunology

M.S., Ph.D. in Pharmacology and Toxicology

M.S., Ph.D. in Physiology (Medical)

M.S. in Community Health Promotion

M.S. in Occupational Therapy

M.S. in Public Health

B.S., M.S. in Exercise Physiology

B.S., M.S. in Medical Technology

B.S.P.T. in Physical Therapy

Historical Background

The West Virginia University School of Medicine started in 1902 as an affiliate with the College of Physicians and Surgeons of Baltimore. In 1912, the School of Medicine had its formal beginnings as an independent school offering the first two years of basic sciences medical curriculum. The clinical years were completed at another institution. The School of Medicine moved to the current Robert C. Byrd Health Sciences Center in 1957 and inaugurated the four year curriculum in 1960, which coincided with the opening of the 550 bed University Hospital. The first M.D. degrees were awarded to 15 students in 1962.

In 1945, the School of Medicine began a course of study leading to a bachelor of science in medical technology. The first graduates were awarded a combined degree by the School of Medicine and the College of Arts and Sciences. The program of medical technology in the School of Medicine was established in 1961.

The Division of Physical Therapy accepted its first class of 16 students in 1970. It offers the final two years of a baccalaureate program leading to the degree of bachelor of science in physical therapy.

In 1972, the Charleston Area Medical Center became affiliated with West Virginia University. The Robert C. Byrd Health Sciences Center of West Virginia University—Charleston Division offers a variety of third and fourth year clerkships for medical students. Approximately one third of each class goes to Charleston for the third and fourth years of medical education.

The Wheeling Division of the Robert C. Byrd Health Sciences Center of West Virginia University was established in 1974 and offers a variety of elective opportunities for students in the fourth year. In 1994, exercise physiology, community health promotion, and public health were added to the list of programs in the School of Medicine. In 1996, Occupational Therapy was initiated.

Facilities

The Robert C. Byrd Health Sciences Center of West Virginia University has excellent clinical facilities. The Ruby Memorial Hospital offers the most sophisticated medical technology available, including magnetic resonance imagery, lithotripsy, laser surgery, and the necessary support technology. The Chestnut Ridge Psychiatric Hospital allows the entire spectrum of psychiatric and behavioral problems to be managed. The Ruby Memorial Hospital also houses the Jon Michael Moore Trauma Center and the WVU Children's Hospital. The Mary Babb Randolph Regional Cancer Center, completed in 1990, provides a facility totally dedicated to the diagnosis and treatment of cancer. Dedicated research and teaching space will allow outstanding cancer scientists to work toward the goals of prevention and cure. Areas of cellular biology, immunology, monoclonal antibody, gene tracking, and recombination research are ongoing at the Cancer Center. In 1996, the Positron Emission Tomography (PET) Center and cyclotron became operational for specialized diagnostic procedures and research.

Healthsouth Mountainview Regional Rehabilitation Hospital, a sixty bed inpatient center, offers students the opportunity to investigate rehabilitative and physical medicine as a career. The Department of Human Performance and Applied Exercise Science has recently evolved, to incorporate Medical Technology, Physical Therapy, and Occupational Therapy, which complements all of the other existing programs.

School of Medicine Departments

Department	Chairperson
Anatomy	Richard C. Wiggins, Ph.D.
Anesthesiology	Robert E. Johnstone, M.D.
Behavioral Medicine and Psychiatry	James M. Stevenson, M.D.
Biochemistry	Diana S. Beattie, Ph.D.
Community Medicine	Alan Ducatman, M.D.-Interim
Emergency Medicine	John Prescott, M.D.
Family Medicine	Charles H. M. Jaques, M.D.
Human Performance and Applied Exercise Science	Mary Beth Mandich, Ph.D.
Medicine	Edward J. Weinman, M.D.
Microbiology and Immunology	John B. Barnett, Ph.D.
Neurology	Ludwig Gutmann, M.D.
Neurosurgery	Howard H. Kaufman, M.D.

Obstetrics and Gynecology
 Ophthalmology
 Orthopedic Surgery
 Otolaryngology
 Pathology
 Pediatrics
 Pharmacology and Toxicology
 Physiology
 Radiology
 Surgery
 Urology

Mark Gibson, M.D.
 John V. Linberg, M.D.
 J. David Blaha, M.D.
 Stephen J. Wetmore, M.D.
 Mary Ann Sens, M.D., Ph.D.
 William A. Neal, M.D.
 William W. Fleming, Ph.D.
 George A. Hedge, Ph.D.-Interim
 Mathias P. Frick, M.D.
 Gordon F. Murray, M.D.
 Donald L. Lamm, M.D.

Committees (Chairpersons)

Academic Standards:	Gunter N. Franz
Biomedical Research Support:	George Spuru
Curriculum Committee:	Anne C. Cutlip
Executive Faculty:	Robert M. D'Alessandri
Faculty Promotion and Tenure:	C. Robert Craig
SoM Hospital Liaison to Student Body:	Robert M. D'Alessandri
Admissions Committee, M.D. Degree:	David S. Hall
E. J. Van Liere Student Research Convocation:	Jeannie S. Strobl
Continuing Medical Education:	James M. Stevenson
Admissions Committee/Medical Technology:	Mary Ellen Koenn
Admissions Committee/Physical Therapy:	Trevor Swan
Committee on Women's Issues:	Rashida Khakoo
Distinguished Teacher Committee:	Mary Ann Antonelli
Coordinating Counsel on	
Graduate Medical Education:	Anthony G. DiBartolomeo
Admissions Committee/Occupational Therapy:	Randy McCombie
High School Summer Research Program:	Christine Baylis

Graduate Programs in Basic Sciences

George A. Hedge, Ph.D., Chairperson, Health Sciences Graduate Council

Nature of Program

Graduate degrees are offered by the School of Medicine in the Departments of Anatomy, Biochemistry, Pathology (Medical Technology), Microbiology and Immunology, Pharmacology and Toxicology, and Physiology. Brief guidelines and descriptions of these programs begin below. For more detailed presentation of graduate programs, as well as the policies and rules governing graduate education, the *West Virginia University Graduate Catalog* should be consulted.

Anatomy

Richard C. Wiggins, Ph.D., Chairperson

Richard D. Dey, Ph.D., Graduate Coordinator

Degrees Offered:

Master of Science, Doctor of Philosophy

General Description

The Department of Anatomy graduate program is committed to training competent researchers and teachers. The program emphasizes various aspects of biomedical sciences, including structural, cellular, molecular, and developmental biology. After completion of core courses, students conduct an original research project culminating in a dissertation (Ph.D.) or a thesis (M.S.).

Interdisciplinary research projects in the department include:

- structure and transcriptional mechanisms controlling neural gene expression
- molecular biology and molecular genetics of neural degeneration and regeneration in the central nervous system
- developmental neurochemistry and environmental influences on brain development, especially nutrition
- neuroanatomy and neurophysiology of somatosensory and auditory systems
- structural plasticity of astrocytes and modulation of synaptic contacts in the central nervous system
- development of synaptic connections in the neocortex
- developmental genetics of behavioral rodent mutants
- neural basis of pulmonary diseases, especially asthma and occupational/environmental diseases
- mechanisms regulating microcirculation under pathophysiological conditions

Prerequisites

Candidates must hold a bachelor's or master's degree. A strong background in biological sciences, inorganic and organic chemistry, physics and mathematics is required. Under special circumstances, some course requirements may be fulfilled after admission to the program. A grade-point average above 3.0 is necessary. The aptitude portion and an advanced section of the graduate record examination are generally required. Applicants desiring consideration for financial aid should complete the application process as early as possible.

Admission

In addition to the University admission procedure, the Department of Anatomy requires applicants to complete a departmental application. Also, three letters of recommendation evaluating the applicant's potential for graduate study must be separately mailed to the Department of Anatomy. Applicants desiring consideration for financial aid should complete the application process as early as possible. Recipients of departmental stipends (teaching assistantships) must participate in laboratory teaching to professional students.

Course Requirements

The first two years of study consists of course work and introduction to research in one or more departmental laboratories. Completion of the two semester interdepartmental course in Molecular and Cellular Biochemistry and one course in either gross anatomy, neurobiology or microscopic anatomy is required. The selection of other courses in basic biomedical sciences (such as advanced molecular biology, advanced biochemistry, anatomy, neurobiology, pathology, immunology, virology, physiology, pharmacology, biostatistics, etc.) allows substantial flexibility, and is tailored to the individual student's interests and research needs. Additional electives are selected by the student in consultation with a major advisor and an advisory committee. Students must maintain a minimum 3.0 overall grade-point average. Students develop skills in reading, critical thinking, and scientific analysis by participating in departmental seminars and journal clubs.

Doctor of Philosophy Degree

The program is designed to complete the requirements for the Ph.D. degree in 4 to 5 years. To be admitted to candidacy for the Ph.D. degree, the student must pass a preliminary examination. In addition, a plan for the research project to be undertaken for the dissertation must be presented to the candidate's advisory committee and approved. To complete the degree, the student must satisfactorily execute the proposed research project, publicly defend a dissertation based on this research, and pass the final examination by the candidate's advisory committee. Success in dissertation research is the core of the degree.

Master of Science

The master's program in anatomy is offered primarily for students in certain specialized fields, such as physical therapy or in a conjoint program in dentistry or medicine. It's purpose is to provide direct experience in scientific investigation. It is not necessary for the student to complete the M.S. degree in order to qualify for admission into the Ph.D. program, although the student may elect to complete the requirements for this degree in progress toward the Ph.D. An applicant who shows a special need for the M.S. degree must generally be as well qualified as applicants to the doctoral program. The M.S. student must complete a minimum of six-to-nine hours of required and elective courses selected by the student in consultation with a major advisor and research committee. A 2.75 grade-point average must be maintained. In addition to course work, the student must complete a thesis based on an original research and defend the thesis at an oral comprehensive examination before the candidate's advisory committee.

Biochemistry

Diana S. Beattie, Ph.D., Chairperson

Brad Hillgartner, Ph.D., Graduate Coordinator

Degrees Offered:

Master of Science, Doctor of Philosophy

Graduate programs in the Department of Biochemistry are designed to assist students in the development of their own capabilities for independent thought and research. All students are provided with a strong biochemistry background; however, the program has sufficient flexibility to allow individual students to select advanced specialty courses in biochemistry which are of particular importance to their career goals. Faculty research problems are of current interest and are diverse, reflecting the broad spectrum of areas encompassing biochemistry.

Admission Requirements

A prospective graduate student should hold a bachelor's degree with a science major and should have successfully completed courses in organic chemistry, calculus, physics, biology, and physical chemistry. In some cases, a deficiency in the above may be made up after admission into the program.

Application is made by submission of the following items to the Department of Biochemistry:

- The completed departmental application form (sent on request);
- Three letters of recommendation from professors who can evaluate the student's present abilities and potential;
- Official transcript of the applicant's college grades; and
- Official copy of Graduate Record Examination scores.

Owing to the sequence of courses, entrance in the fall is preferred, but exceptions may be made as necessary. Application materials and program details may be obtained by writing the graduate coordinator, Department of Biochemistry, School of Medicine, P.O. Box 9142, West Virginia University, Morgantown, WV 26506-9142. The deadline for receipt of applications and supporting documents by the department is April 1; to be considered for financial support, applications should be submitted by February 1.

Doctor of Philosophy

To assure that all students become familiar with the basic principles of biochemistry, the first year of the doctor of philosophy (Ph.D.) program is devoted primarily to course work. In addition to formal courses during the first semester, students participate in a laboratory program that involves all faculty members. This laboratory experience is designed to illustrate the basic research skills involved in biochemistry. During the second semester, students will undertake research in at least two laboratories of their choice.

Upon successful completion of the first year, students will choose a dissertation research adviser, at which time emphasis will be placed on research. During the second year, specialized courses in biochemistry will be offered as the students continue their research programs. During subsequent years, the students emphasize independent thesis research, and a few formal courses are taken.

An essential component of the Ph.D. program is participation in departmental journal clubs and seminars. Both students and faculty participate; thus, students learn to organize effectively and present research material to a large group of people.

Completion of the Ph.D. program is realized when the student successfully presents the research results to both the Department of Biochemistry and a graduate advisory committee. Typically, four years are required to realize this goal.

Master of Science

The Department of Biochemistry offers the thesis master's degree. This program involves completion of a master's research project in addition to formal course work. Two to three years are generally required to complete the M.S. program.

Research

Hormonal regulation of metabolism. Regulation of gene expression. Structure and function of nucleic acids. Chemistry of enzymes and serum proteins. Biogenesis of membranes. Membrane molecular biophysics

Microbiology and Immunology

John B. Barnett, Ph.D., Chairperson

Robert Burrell, Ph.D., Graduate Coordinator

Degrees Offered:

Master of Science, Doctor of Philosophy

The Department of Microbiology and Immunology offers programs of study leading to the degrees of master of science (M.S.) and doctor of philosophy (Ph.D.) in microbiology and immunology. Students with an undergraduate degree can apply to either the M.S. or Ph.D. program. The major purpose of graduate education in the department is research training. The basic philosophy of the department is that the students have a strong foundation in basic concepts of microbiology and immunology and flexibility in choosing advanced course work in their specific areas of interest. A major emphasis of the graduate program is extensive laboratory research in microbiology and immunology. Each student will complete an original, in-depth research investigation. The overall aim of the program is to produce students capable of designing and doing independent research and teaching.

Admission Requirements

Applicants to either the Ph.D. or M.S. graduate programs in microbiology and immunology ought to have had at least four upper-level courses in the biological sciences, two semesters of organic chemistry, two semesters of physics, and a strong background in mathematics (including calculus) in order to be considered for admission. Applicants must submit a departmental application form, three letters of recommendation, and general Graduate Record Examination (GRE) scores to the graduate coordinator, Department of Microbiology and Immunology, P.O. Box 9177, School of Medicine, West Virginia University, Morgantown, WV 26506-9177. In addition, transcripts and

an official application for admission must be sent directly to the WVU Office of Admissions and Records, P.O. Box 6009, Morgantown, WV 26506-6009. Applicants for admission to a degree program should have a grade-point average of 3.0 or better and must take the general GRE. GRE scores are also used as one of several selection criteria for admission to the department's graduate program. Although no minimum score is required for selection, successful applicants usually have a combined score of 1500 or greater on the general GRE. International students must have a TOEFL score of at least 550. Early application is encouraged. Applicants desiring financial aid should complete their application before March 1. All applications must be completed by June 1 for fall admission. No mid-year admissions are made.

Program Requirements

Master of Science

Every student must take the following courses or demonstrate proficiency by examination in each of the following areas: Microbiology (MBIM) 317 *Special Problems in Microbiology* and MBIM 391 *Advanced Topics* (laboratory rotation). Every student must take the following courses or demonstrate proficiency by examination in each of the following areas: Microbiology (MBIM 317A, 317B and 317C) Graduate Immunology, Virology, and Microbiology; Biochemistry (BIOC 399D), Cellular and Molecular Biochemistry I and II; and MBIM 391 *Advanced Topics* (laboratory rotations). The remainder of the course work is selected by the student and the advisory committee from the following courses: MBIM 327, 399 or any of the microbiology and immunology advanced study courses MBIM 491). Enrollment in MBIM 496 *Seminar* is required each semester that the student is in residence. All full-time students in the Department of Microbiology and Immunology are required to participate in teaching at least one semester a year.

The master of science program requires 30 hours of course work, of which at least 20 hours must be in microbiology and immunology. Six hours must be in research (MBIM 397). A grade-point average of at least 3.0 must be maintained. A thesis representing original research and a final oral examination are required. In general, two years are needed to complete the M.S. program.

Doctor of Philosophy

Students with either a bachelor's or master's degree can apply to the Ph.D. program. Those with a bachelor's degree must complete the basic course requirements expected of an M.S. candidate. The doctoral candidate with an M.S. degree from another department must have had course work or demonstrate knowledge in microbiology and immunology and biochemistry equivalent to that of a master's student in the department. In addition, the doctoral student will take additional course work as determined by the student's graduate research advisory committee. A minimum of nine hours in MBIM 491 courses or selected advanced courses from other departments is required. Where appropriate, course work in related subjects such as computer science, cell biology, biochemistry, physical chemistry, and statistics will be required. MBIM 496 *Seminar* is a required course each semester that the student is in residence. The student will maintain a grade point average of 3.0. The doctor of philosophy program requires a dissertation representing the results of an original research investigation and the passing of a written

qualifying and a final oral examination. The qualifying examination is given at the end of the first year of study. The final oral examination is given after completion of research and an acceptable dissertation. All full-time students are required to participate in teaching at least one semester a year. Three years are usually needed to complete the Ph.D. program.

The Department of Microbiology and Immunology has informal journal clubs in immunology and in microbiology. These are designed to help the students develop skills in reading, interpreting and discussing current research articles. All students are expected to participate in one or more.

For application materials, a description of faculty research interests, guidelines for graduate study in the Department of Microbiology and Immunology, or additional information, write to the chairperson, Admissions and Scholarship Committee, Department of Microbiology and Immunology, P.O. Box 9177, West Virginia University, Morgantown, WV 26506-9177.

Research

Cell Biology: oncogenes and cell signalling.

Genetics: basic studies in the mechanisms of genetics including transfer of genetic information; recombinant DNA studies.

Immunology: immunopathology of pulmonary disease and microbial inhalants; developmental immunology; mechanisms of T cell function; immunogenetics; immunotoxicology; mucosal immunology; immunology of infectious microbes.

Mycology: pathobiology of medical mycoses; antibiotic susceptibility testing; environmental health implications of fungal and algal toxicoses.

Parasitology: host parasite relationships between helminths and insects with vertebrate hosts; protozoan endosymbionts.

Pathogenic Bacteriology: mode of action of microbial products in pathogenicity; ecology of clinical microbiology; antibiotic mode of action; immunomodulation of cystic fibrosis.

Physiology: nutrition and metabolism of a variety of pathogenic microorganisms; growth and protein synthesis of intracellular bacteria.

Virology: retroviral recombination, oncogene transduction, and human gene therapy.

Pharmacology and Toxicology

William W. Fleming, Ph.D., Chairperson

Charles R. Craig, Ph.D., Graduate Coordinator

Degrees Offered:

Master of Science, Doctor of Philosophy

Pharmacology and toxicology involve all aspects of the action of drugs on living systems and their constituent parts. These range from the chemical reactions taking place within cells to the evaluation of a drug in the treatment of human disease. The Department of Pharmacology and Toxicology offers graduate studies leading to the degrees of master of science and doctor of philosophy, with research concentrations in such areas as autonomic pharmacology, biochemical pharmacology, neuropharmacology, molecular pharmacology, cardiovascular pharmacology, endocrine pharmacology, ion-channel pharmacology, malarial chemotherapy, signal transduction, and renal, hepatic, and pulmonary toxicology.

Admissions Requirements

Regular applicants for the graduate program in pharmacology and toxicology should present, as a minimum, the following undergraduate courses: one semester of biology; two semesters of physics; one semester of calculus; four semesters of chemistry including two semesters of organic chemistry. Three letters of recommendation from science professors, an official transcript, and the results of the Graduate Record Examination are also required. The prospective student should have a minimum 3.0 overall grade-point average at the undergraduate level.

In general, students requesting financial support should have all credentials forwarded by February 1. For additional information write to the Graduate Coordinator, Department of Pharmacology and Toxicology, P.O. Box 9223, WVU Health Sciences Center, Morgantown, WV 26506-9223.

Master of Science

Ordinarily the department does not accept graduate students solely into a master's program. However, the master's degree is offered and is available as an intermediate degree en route to the Ph.D. Its primary function, as viewed by the faculty, is as an aid to the student new to research for the formulation, conduct, and writing of an abbreviated, but complete, independent research project (thesis). The course work requirements for the M.S. in pharmacology and toxicology usually consist of Physiology 344 and 345, graduate biochemistry, Statistics 311, and Pharmacology and Toxicology 361, 364, 461, 462, and 497. Most students may, with the faculty's concurrence, choose to proceed directly with their doctoral research without a master's degree. These students must submit a comprehensive progress report on their research in lieu of a thesis.

Master's committees will consist of no fewer than three members with no more than one from outside the department, the majority of which will be regular members of the graduate faculty including the chairperson. No more than one person may be a non-member of the graduate faculty.

Doctor of Philosophy

Before official admission to candidacy for the doctorate, the student must satisfactorily complete a grant-writing exercise, an acceptable progress report, and an oral comprehensive qualifying examination. When a student has submitted a grant proposal, a committee—ordinarily consisting of at least three members of the Department of Pharmacology and Toxicology and two members from outside the department—is appointed and constitutes the oral examining body. The oral qualifying examination is administered in January of the student's third year in the program.

Dissertation

Upon admission to candidacy for the degree of doctor of philosophy, the candidate must select a topic for the dissertation under the direction of the candidate's adviser, complete a dissertation which makes a contribution to knowledge in the candidate's area of concentration, and pass an oral examination based primarily upon the dissertation. After successful completion of the oral examination and submission of the final copy of the dissertation, the candidate will be recommended for the degree.

Research Areas

Autonomic pharmacology: autonomic regulation of the cardiovascular system and of smooth muscle; sensitivity to neurotransmitters; electrophysiologic studies of cardiac and smooth muscle; receptors and second messengers.

Chemotherapy: antimalarial agents, role of ion channels in tumor development, effects of pharmacological agents on single-cell organisms.

Biochemical pharmacology: drug metabolism, effects of drugs on lipid and nucleic acid metabolism.

Endocrine pharmacology: molecular mechanism of action of steroids, metabolism of sex accessory tissues, relationship of hormones to tumor growth and development.

Neuropharmacology: biochemical and electrophysiological basis of epilepsy, neuromediators in the central nervous system, mechanisms of signal transduction, ion-channel pharmacology.

Toxicology: metabolism of toxic agents, pulmonary toxicology, renal toxicology, environmental toxicology, perinatal pharmacology and toxicology.

Physiology (Medical)

Matthew Boegehold, Ph.D., Graduate Coordinator

Degrees Offered:

Master of Science, Doctor of Philosophy

The Ph.D. program is designed to produce physiologists of high quality, capable of conducting independent research and being effective teachers. Students in our department are exposed to all aspects of physiology and a variety of related sciences. The master's program is designed as an introduction to research in physiology for students interested in, but not yet committed to, a research career. Students in this program receive training in the fundamentals of physiology and experience in a research laboratory.

Admission Requirements

Applicants should have a strong background in biology and/or chemistry. In addition to a basic biology course, inorganic and organic chemistry are required. Because several areas of physiology require an understanding of the fundamentals of calculus and physics, introductory courses in these subjects are also essential. It is strongly recommended that applicants have taken biochemistry cellular or molecular biology and an introductory physiology course. Physical chemistry is recommended but not required.

The department requires the following materials for consideration for the M.S. or Ph.D. program: three letters of recommendation; transcripts of all undergraduate and graduate grades; a completed departmental application form; and Graduate Record Examination scores (general test). Students from non-English speaking countries also need a Test of English as a Foreign Language (TOEFL) score in excess of 550. A bachelor's degree, or equivalent, is required for admission; an M.S. degree is not a prerequisite for the Ph.D. program.

A complete application kit and detailed descriptions of the degree programs can be obtained by writing to the Graduate Coordinator, Department of Physiology, P.O. Box 9229, School of Medicine, West Virginia University, Morgantown, WV 26506-9229. Although applications may be submitted as late as May of the year of matriculation, applications must be received before March 1 to be considered for financial aid.

Master of Science

Prerequisites for admission to the master's program are the same as those for the doctoral program. The first two semesters are devoted largely to course work in physiology: twelve hours of physiology, three hours of neurophysiology, and eight hours of physiological methods. A two-semester course in cellular and molecular biochemistry is also required. Students are introduced to the research interests of the faculty through the graduate colloquium and rotations in some faculty members' laboratories. By the end of the second semester, students will have picked a thesis adviser and will begin work in that laboratory during the summer. The second year is spent primarily on research for and writing of the master's thesis. Students are required to take four hours of advanced physiology and present a research seminar during the second year.

Doctor of Philosophy

The first year curriculum familiarizes the student with the basic information and principles that form a background for advanced work in physiology. Much of this overlaps with the basic science material presented to medical students, so that all students attend several medical school courses, including physiology and neurophysiology. A two-semester cellular and molecular biochemistry course is also required.

In addition to this course work, students are introduced to the research interests of the physiology faculty through the graduate colloquium and rotations in some faculty members' laboratories. The latter are designed to help students choose a dissertation adviser by exposing them to the experimental approaches and techniques used in different laboratories within the department.

During the first summer, students are expected to begin research projects in a departmental research laboratory of their choice. This allows a student to explore an area of research interest and to develop a working relationship with a faculty member without a firm commitment to pursue a dissertation project in that laboratory.

During the second year, the student combines course work with the continuing development of research interests. A graduate adviser is selected during this year. Courses include: advanced physiology (12 hours), graduate colloquium (two hours), graduate seminar (one hour), a teaching practicum (two hours), and research (nine hours).

The second-year curriculum takes the student beyond the medical curriculum, emphasizing critical appraisal of the current research literature. In addition, the student begins to develop his/her teaching skills. The purposes of the graduate colloquium and seminar are twofold. First, they give students an opportunity to become informed of the latest scientific advances. Secondly students have an opportunity to develop and practice presentation of research

seminars. In addition to presentations by faculty and students from the Department of Physiology, faculty members from other departments at WVU and from other institutions are invited to present seminars in the program.

After successful completion of the second academic year, the student takes a two-part qualifying examination. The qualifying examination consists of a comprehensive written examination covering all of the major areas of physiology, followed by a written and oral research design examination. Upon successful completion of the qualifying examination, the student is admitted to candidacy for the degree of doctor of philosophy.

During the third and fourth years, the student may enroll in elective courses. Yearly participation in the teaching practicum provides additional experience in delivering lectures to undergraduate and professional students. However, the student's major effort is directed toward dissertation research. Results of this effort are presented annually in the graduate colloquium. During these years the student will attend and present papers at national meetings of scientific societies (e.g., American Physiological Society, Biophysical Society, Endocrine Society, Experimental Biology, Society for Neurosciences). The Ph.D. degree generally can be completed in four or five years.

Research and Instruction

Research areas: Faculty laboratories offer opportunities for research in cardiovascular, cell, endocrine, muscle, neural, renal, and respiratory physiology.

Doctor of Medicine Degree (M.D.)

The degree of Doctor of Medicine (M.D.) is granted to students who have completed the prescribed curriculum and who have been recommended for the degree by the faculty of the School of Medicine.

The M.D.-Ph.D. program is available to those students who show exceptional interest and scholarly promise. All of the admission requirements of the School of Medicine and the specific graduate program apply. Students apply for the combined degree program after acceptance into medical school.

It is to be understood that the following information applies only to students in the School of Medicine who are enrolled in the prescribed curriculum which culminates in the M.D. degree. All other students, undergraduates, or graduates enrolled in other programs in the School of Medicine are governed by the policies found elsewhere in the *Health Sciences Center Catalog*.

Accreditation

The West Virginia University School of Medicine is accredited by the Liaison Committee on Medical Education (L.C.M.E.).

Admission Requirements

The student preparing for any career in the health professions must have a keen interest in the sciences. Science courses taken in high school should include as many biology, chemistry and physics courses as possible. A good background in mathematics is strongly recommended.

The following courses are required for consideration of an application to Medical School.

English	6 semester hours or equiv.
Biological Sciences (with lab)	8 semester hours or equiv.
Inorganic Chemistry (with lab)	8 semester hours or equiv.
Organic chemistry (with lab)	8 semester hours or equiv.
Physics (with lab)	8 semester hours or equiv.
Social or Behavioral Sciences	6 semester hours or equiv.

Calculus, biochemistry, and cell biology are strongly recommended. A total of 90 semester hours, exclusive of ROTC and general physical education, is required. Students must be prepared to take computer licensure examinations by 1998. All required courses must be passed with a grade of C or better.

An excess of credit hours or higher degrees does little to offset the disadvantage of low grades when being considered for admission to the School of Medicine. The practice of repeating courses to raise the grade is discouraged. Applicants who have been subject to suspension from West Virginia University or other medical schools can be admitted only in very exceptional cases and at the discretion of the Admissions Committee.

Pre-Admission Tests

The scores of the Medical College Admissions Test (MCAT) are one of the factors used by the admissions committee in considering an applicant for admission. The MCAT must be taken within two years of applying to medical school. It is recommended that students take the MCAT during the spring of their junior year in college. This allows for a repeat examination in the fall if necessary. Waiting until fall to take the test could jeopardize an applicant's opportunity since no application for admission is given final consideration until MCAT scores are received by the Admissions Committee. The MCAT score must be recorded prior to closing of admissions on November 15.

Information concerning the time and place of the test can be obtained from your premedical advisor, committee, or the Office of Admissions and Records.

Application Procedure

The admission process is initiated by completing the American Medical College Application Service (AMCAS) forms. AMCAS packets may be obtained from the Office of Admissions and Records of the West Virginia University Health Sciences Center, or through most preprofessional advising offices.

Application for admission in August, 1998, should be made at the end of the 1996-97 school year. The last date for filing an application is November 15. The applicant should file as early as possible making certain that recent MCAT scores, current transcripts, and letters of recommendation are available to the Admissions Committee.

Preference in admission is given to West Virginia residents and those non-resident applicants who have strong ties to the state. No one specific factor is used to determine admission. However, careful consideration is given to those personal qualifications which apply to the study and practice of medicine. The criteria for admission include academic performance, course load, letters of recommendation, MCAT scores, motivation, interpersonal skills, and a personal interview.

No applicant is admitted before an interview by the Admissions Committee. All qualified residents of West Virginia are granted an interview. Qualified nonresident applicants are interviewed at the discretion of the Admissions Committee. Residency status is determined by the Board of Trustees Policy Bulletin #36. Interviews and consideration of applicants begin in September.

If an applicant is denied admission or does not enroll after acceptance, he/she must reapply in the regular manner for consideration in a subsequent year.

Advanced Standing

Advanced standing positions are offered only in very exceptional circumstances and only to students currently attending a medical school accredited by the Liaison Committee on Medical Education (L.C.M.E.). A request for transfer is usually considered during the second year. The application must be received no later than April 1. The applicant must present certification of good academic and professional standing in the school from which he/she is transferring. An official transcript of all prior medical school work is required from all medical schools attended. In addition, successful results of Step I of the United States Medical Licensure Examination must be available before action on an application can be finalized.

Conditions Following Acceptance

An applicant accepted into the first year or in advanced standing is expected to meet all entrance requirements and satisfactorily complete all undergraduate/medical school work in progress. A satisfactory performance in the completion of such work is defined as one which is consistent with the student's previous academic record. Failure to do so may result in the withdrawal of the acceptance by the Admissions Committee.

The student must be aware that furnishing or causing to be furnished false or incorrect information for the purpose of the School of Medicine application constitutes grounds for disciplinary actions, including, but not limited to, expulsion or revocation of the acceptance.

Students in the School of Medicine agree to abide by the provision of an integrity code, which requires ethical and moral standards of conduct in all situations. Each student is required to return a signed statement to the Office of Student and Curricular Affairs, indicating the student has read and understands the Student Professional and Academic Integrity Code of the West Virginia University School of Medicine. The code and copies of the statement are available in the Office of Student and Curricular Affairs in the School of Medicine.

Prior to matriculation, all students must complete certain prescribed immunization and diagnostic procedures. Personal health insurance is strongly recommended.

Promotion and Graduation Requirements Evaluation of Student Progress

Promotion of a student in the M.D. degree program is evaluated in three major areas: 1) Successful completion of all required work; 2) Successful completion of Step I and Step II of the United States Medical Licensure Examination, and 3) Successful fulfillment of the professional standards of the School of Medicine.

The information which follows is only a brief outline of the School of Medicine policies and procedures. Detailed requirements and policies for evaluation of student progress and graduation may be found in the Policy on Academic and Professional Standards Governing the M.D. Degree Program

at West Virginia University School of Medicine. Copies are available through the Office of Student and Curricular Affairs. The Committee on Academic and Professional Standards administers all promotion and dismissal rules.

Academic Course Work Review

The Committee on Academic and Professional Standards of the School of Medicine reviews the performance of each student in every course at the end of each academic period and makes recommendations to the Dean. If a student has been found to have an unsatisfactory performance in any of the required courses, dismissal from the school may be recommended. In selected circumstances, the committee may recommend remedial work or repetition of all or a portion of the curriculum. Exceptions may be made only on recommendation of the committee. The application of rules on dismissal is not automatically changed by removal of incomplete (I) grades or by the repetition of courses in other medical courses.

It is the policy of the School of Medicine that the departments conduct examinations of various types from time to time to help in the overall evaluation of student progress. In addition to the departmental examinations, other examinations may be conducted at times for other purposes. At the end of the first year a comprehensive examination, designed on an interdepartmental basis, may be required as a test of readiness for promotion.

Rarely, a student may be subject to remedial work or dismissal on recommendation of the Committee on Academic and Professional Standards to the dean even though no Unsatisfactory (U) grade has been received in a required course. Such an unusual event would occur only if, in the opinion of the Committee, the student's overall performance does not meet the academic/professional standards of the School of Medicine.

Readmission of a dismissed student is the prerogative of the Admissions Committee after careful review of the student's performance, including but not limited to, recommendations of the Committee on Academic and Professional Standards.

Grading Policy

All courses required for the M.D. Degree are graded as Honors (H), Satisfactory (S), or Unsatisfactory (U) at the completion of the course in lieu of other letter grades. The H, S, and U designation is accompanied by a narrative report of the student's progress, noting any factors requiring remedial work or counseling. The narrative is submitted by each course and filed in the Office of Student and Curricular Affairs. The U shall be regarded as a failing grade and all University regulations regarding a failed course shall then apply.

The grade of incomplete (I) is given when the instructor believes that the work is unavoidably incomplete or that a supplementary examination is justifiable. If a grade of I is not removed by satisfactory completion of the work before the end of the next semester in which the student is in residence, it becomes a failure (unsatisfactory) unless special permission to postpone the work is obtained from the Committee on Academic and Professional Standards (University rule). It is the responsibility of the student to consult the instructor about the means and schedule for making up incomplete courses.

No student will be permitted to register for any work of the second or subsequent year until all courses for the year before have been completed successfully.

All students who have a health problem which they feel may be causing difficulty with their academic progress are strongly advised to notify the Associate Dean for Student and Curricular Affairs.

United States Medical Licensure Examination (USMLE)

All states require that physicians be licensed to practice medicine. Satisfactory completion of all portions of the United States Medical Licensing Examination (USMLE) is the only mechanism by which this license may be obtained. The School of Medicine requires successful testing of Step I and Step II for promotion and graduation. A failing grade will delay progress and require remediation. School of Medicine policy limits a student to three attempts on each step.

Step I is required upon successful completion of all basic science course work. A passing grade in Step I is required for promotion into the clinical rotations. Step II is required after successful completion of third year clinical rotations. A passing score on Step II is required before a recommendation can be made to grant the M.D. degree by the School of Medicine faculty and Committee on Academic and Professional Standards.

Professional Standards Review

All nondisciplinary matters are governed by the concept of academic due process.

Upon concurrent recommendation of the Admissions Committee, the Committee on Academic and Professional Standards, and the departments concerned, a limited number of students may be admitted to the School of Medicine to follow a special schedule reflecting the student's individual needs to complete requirements for the M.D. degree.

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession. In all other matters, due process principles shall apply. For further information the reader is referred to The Policy on Academic and Professional Standards Governing the M.D. Degree Program at West Virginia University School of Medicine, which is available at the School of Medicine Office of Student and Curricular Affairs.

Departure from Scheduled Work

Medical students are registered for all prescribed courses for each semester except by special permission from the Committee on Academic Standards of the School of Medicine. This permission is not valid until it has been reported to the Assistant Director of Admissions and Records, Health Sciences Center, and for record, The Office of Student and Curricular Affairs, School of Medicine.

Interruption of academic work must be approved by the Office of Student and Curricular Affairs.

Curriculum

The field of medicine is rapidly changing. The following curriculum outline is the plan that is presently in place. However, the medical school curriculum at West Virginia University will change as needs dictate.

Medicine

Effective fall 1996, all students of the Health Sciences Center are required to perform community service as a component of their curriculum. Medical students must complete 100 hours of community service prior to graduation.

First and Second Years

The curriculum in medical school can be divided into two phases. The first two years are devoted largely to the basic sciences, including anatomy, biochemistry, physiology, microbiology, pathology, and pharmacology. There is an Introduction to Clinical Medicine course during the second year utilizing faculty-mentor teaching, as well as courses in Behavioral Science and Genetics. A weekly Problem-Based Learning Conference integrates the Clinical Correlation to the basic sciences. See the Medicine I and Medicine II charts for representative schedules.

Clinical Years

The last two years of study take place in the clinics and hospitals where students have the opportunity to help diagnose and treat patients under supervision of the full-time faculty and staff. All students will serve a significant portion of the clinical years training at an off campus or rural site.

Third Year

The third year is structured and the student must spend a designated period of time in each of the major clinical disciplines. This gives the student a foundation in history-taking, examination, patient relations, laboratory aids, diagnosis, treatment, and use of the medical literature in the major clinical disciplines.

Approximately one-third of each class is selected during their first year to spend the third and fourth year at the Charleston Division of the Robert C. Byrd Health Sciences Center of West Virginia University.

Fourth Year

The fourth year is a partially structured and partially elective year. Each student works with an adviser to select the program best suited to the individual's abilities and goals. The courses selected are subject to the approval of the Associate Dean in the Office of Student and Curricular Affairs.

Five months of the senior year are committed to required clerkships which include one month in Internal Medicine, Family Medicine, or Pediatric Sub-Internship; one month in Critical Care/Anesthesia; one month of Surgery or Surgical Sub-specialties; and two months of rural Primary Care. The remainder of the senior year is elective.

Five months of the senior year must be spent at clinical sites on the campuses at Morgantown and Charleston, or at approved teaching sites throughout West Virginia. A catalog is available from the Office of Student and Curricular Affairs that lists the approved electives.

Students interested in other extramural opportunities are advised to consult with the fourth-year curriculum coordinator in the Office of Student and Curricular Affairs. Elective time must be spent in L.C.M.E. (Liaison Committee on Medical Education) or JCAH (Joint Council of American Hospitals) accredited institutions. Foreign rotations, regardless of sponsorship, are limited to one month credit.

Every fourth-year student has the opportunity for two weeks of vacation. The student may alternatively choose a clinical exercise for vacation time.

First Semester		Weeks	5	10	15
Hours	4	Physiology 344			
	8	Gross Anatomy 303			
	12				
	16				
	20				
	24	Biochemistry 231			
	28	Problem-Based Learning			
	32				
	36				

Second Semester		Weeks	5	10	15
Hours	4	Neurobiology 375			
	8				
	12				
	16				
	20	Microanatomy 305			
	24	Physiology 345			
	28	Epidemiology 322			
	32	Behavi. Med. & Psych. 311			
	36	Problem-Based Learning			

Medicine I

First Semester		Weeks	5	10	15
Hours	4	Pathology 351			
	8				
	12				
	16				
	20	Microbiology 301			
	24	Behav. Med. & Psych. 321			
	28	Intro to Clinical Medicine 321			
	32				
	36				

Second Semester		Weeks	5	10	15
Hours	4	Pathology 352			
	8				
	12				
	16				
	20	Pharmacology and Toxicology 361			
	24	Genetics 370			
	28	Community Medicine 312			
	32	Intro to Clinical Medicine 322			
	36				

Medicine II

Weeks

8	Medicine
8	Surgery
8	Behavioral Medicine and Psychiatry with two weeks of Neurology
8	Obstetrics and Gynecology
8	Pediatrics
8	Family Medicine including Rural Rotation
48	Total

Medicine III Clerkships

Community Health Promotion

Kenard McPherson, Ed.D., Program Director
147 Coliseum

Degree Offered:

Master of Science in Community Health Promotion

The community health promotion program offers a master of science degree with majors in community health education and school health education. The community health education emphasis includes a clinical or research option. The purpose of the program is to prepare health professionals to interface between communities and health care systems. Community health professionals serve as partners in the health care team and provide leadership in planning, developing, organizing, implementing and evaluating health promotion programs.

Health promotion graduates may be employed as school health educators, community health educators, wellness center program managers, and health promotion specialists in corporations, health agencies, or state/county health departments.

Admission

Applicants to the degree program must hold a bachelor's degree from an accredited college or university, meet university admission standards, and demonstrate academic achievement in previous studies. Applicants for the school health education emphasis must hold a West Virginia teaching certificate or be in the process of obtaining certification.

Grade-Point Average

Applicants must have attained a GPA of 3.0 or better at the bachelor's or master's level to be accepted as a regular graduate student. Applicants with a GPA below 3.00 may be accepted on a provisional basis. Applicants meeting admission requirements may not be accepted if program enrollment maximum level has been reached. Preferential admission is given to the best qualified students fulfilling one or more of the following qualifications:

- At least two years of full-time professional work experience in the health or human services field.
- Breadth and depth of academic preparation in the biological or health sciences.
- Bachelor's degree in health education or health promotion.

Applicants are regularly admitted for the fall term. Preference is given to early applicants meeting all admission requirements by March 1 of the year in which the applicant intends to begin the program. Under unusual circumstances, applicants may be admitted during the spring or summer terms.

Students in the community health education master's program complete a clinical or a research emphasis. Students selecting the clinical emphasis complete 48 hours of study (36 hours of coursework and a 12-hour practicum). Required CHPR courses are CHPR 310, 311, 312, 314, 334, 335, 338, and 348. In addition to the 24 hours of required courses, students must take 12 hours of electives approved by the student's faculty committee. They may choose from topical areas such as substance abuse, injury control, wellness,

evaluation, and epidemiology. The practicum (CHPR 350) is designed for students without professional health promotion-related work experience. For students without work experience, 12 hours of CHPR 350 are required. Experienced (more than two years) health promotion professionals may receive credit based upon their work experience in lieu of the practicum. Partial credit for CHPR 350 for students with less than two years of professional health promotion-related work experience may be determined by the student's faculty committee.

Students in the research emphasis complete 36 credit hours. Required CHPR courses are CHPR 310, 311, 312, 314, 334, 335, and 397 (six hours). In addition to the 24 hours of required courses, students must take 12 hours of electives from health promotion, epidemiology, statistics, research, and scientific methods courses. Electives must be approved by the student's faculty committee.

The school health education emphasis is **open only** to students who hold a West Virginia teaching certificate or who are eligible for certification. Students must complete 48 credit hours. Required CHPR courses are CHPR 301, 307, 220 or 309, 310, 311, 312, 334, 335, 338, and 391 (Nutrition for Educators). In addition to the 30 hours of required courses, students must take 18 hours of electives approved by the faculty committee.

Department of Human Performance and Applied Exercise Science

Three divisions make up the Department of Human Performance and Applied Exercise Science. The divisions are:

Division of Exercise Physiology

Has both an undergraduate and graduate program.

Division of Occupational Therapy

Has an entry-level masters program.

Division of Physical Therapy

Currently has a bachelor's degree program but plans to transition to an entry level masters program in fall 1997.

Exercise Physiology

Rachel A. Yeater, Ph.D., Professor and Chair

Degree Offered:

Bachelor of Science

Introduction

The WVU exercise physiology program was established in the Robert C. Byrd Health Sciences Center's School of Medicine in July 1993. Prior to that time, the exercise physiology program was administered in the School of Physical Education. The program offers a four-year curriculum leading to a bachelor of science degree in exercise physiology. The bachelor of science in exercise physiology is a preparatory program for graduate or professional school. Graduates continue their education in areas such as exercise physiology, physical therapy, or medicine. The program is designed to provide students a background in basic science and exercise physiology, as well as courses in nutrition, athletic training, first aid and emergency care, and business.

Exercise Physiology—The Profession

Exercise physiologists are trained to evaluate people in the areas of cardiovascular fitness, muscular strength and endurance, flexibility, neuromuscular integration, and body composition. They are also trained to provide exercise programs based on the results of these evaluations, that are designed to increase the functional capacity of the participants. Exercise physiologists work with athletes, patients, or healthy participants in the areas of disease prevention in wellness programs, or rehabilitation in hospital settings. The bachelor of science program is a preparatory program for graduate school. Graduates of this program continue their studies in exercise physiology, physical therapy, medicine, or other health-related careers. Graduates of the master of science or doctoral program find employment in corporate wellness, hospital rehabilitation, or higher education. Additionally, they may be employed in a wide variety of private, community, state, and national agencies. Exercise physiology is an evolving field that is becoming increasingly important with the integration of preventive medicine into the health care system. Employment opportunities are expanding and increase with experience and level of education.

Bachelor of Science

Admission

Students must meet the minimum requirements for WVU for admission to the program. Students must complete one year of pre-exercise physiology courses with at least a 2.75 grade-point average. All required courses must be completed with a grade of C or higher.

Pre-Exercise Physiology Courses

English: three hours of composition and rhetoric (ENGL 1).

Biology: eight hours of general biology (BIOL 1, 2, 3, and 4).

Mathematics: six hours of college algebra and trigonometry (MATH 3 and 4).*

First Aid and Emergency Care: 3 hours (CHPR 72).

Liberal Studies Cluster Courses: 12 hours from Cluster A and/or B.

*Math 14, 15 or 128 can be substituted for Math 3 and 4

Program Requirements

Students must complete the University requirements for the liberal studies program (including 12 hours of cluster A and 12 hours of cluster B). Students must complete the following courses or course equivalents in theory and foundation to meet the exercise physiology program requirements:

Course	Hours
SS 226 <i>Special Topics: Sports and the Courts</i>	3
CHPR 72 <i>First Aid and Emergency Care</i>	3
PET 75 <i>Motor Learning and Development</i>	3
ATTR 121 <i>Sport Injury Control and Management</i>	3
ATTR 219 <i>Gross Anatomy</i>	3
EXPH 164 <i>Kinesiology</i>	3
EXPH 165 <i>Exercise Physiology I</i>	3
EXPH 168 <i>Laboratory Techniques and Methods I</i>	3
EXPH 194 <i>Professional Field Experience</i>	6
EXPH 196 <i>Senior Thesis</i>	3

MATH 3 <i>College Algebra*</i>	3
MATH 4 <i>Plane Trigonometry*</i>	3
PHYS 1 <i>Introductory Physics</i>	4
PHYS 2 <i>Introductory Physics</i>	4
CHEM 15 <i>Fundamentals of Chemistry</i>	4
CHEM 16 <i>Fundamentals of Chemistry</i>	4
CHEM 133 & 135 <i>Organic Chemistry I</i>	4
CHEM 134 & 136 <i>Organic Chemistry II</i>	4
BIOL 1 & 3 <i>General Biology and Lab**</i>	4
BIOL 2 & 4 <i>General Biology and Lab**</i>	4
PSIO 141 <i>Elementary Physiology</i>	4
HN & F 71 <i>Introduction to Human Nutrition</i>	3
BUSA 120 <i>Survey of Management</i>	3
BUSA 130 <i>Survey of Marketing</i>	3
STAT 101 <i>Elementary Statistical Inference</i>	3
Suggested Electives: BIOL 19 <i>The Living Cell</i> (4 hrs.) and <i>Biochemistry</i> 139 (3 hrs.)	

*Students may take MATH 14, MATH 15 or MATH 128 in place of MATH 3 and 4.

**Students may take BIOL 15 & 17 in place of BIOL 1-4.

Students must have a grade of C or better in all required courses. Science courses must be taken at WVU. Students must have a minimum of 128 hours to graduate. Students must maintain a cumulative GPA of 2.5 or better to remain in the program.

Exercise Physiology Curriculum Plan

Pre-Exercise Physiology Required Courses

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
ENGL 1	3	MATH 4*	3
Cluster A or B	6	BIOL 2 & 4**	4
MATH 3 *	3	Cluster A or B	6
BIOL 1 & 3**	4	CHPR 72	3
Total	16	Total	16

Sophomore

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
CHEM 15	4	CHEM 16	4
PHYS 1	4	PHYS 2	4
HN&F 71	3	SS 226	3
ATTR 121	3	ATTR 219	3
ENGL 2	3	Cluster A or B	3
Total	17	Total	17

Junior

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
CHEM 133 & 135	4	CHEM 134 & 136	4
EXPH 164	3	EXPH 165	3
Writing Course	3	PSIO 141	4
Cluster A or B	6	EXPH 168	3
Total	16	Cluster A or B	3
		Total	17

Senior

First Semester	Hrs.	Second Semester	Hrs.
EXPH 194 (Internship)	3	EXPH 196 (Senior thesis)	3
BUSA 120	3	EXPH 194 (Internship)	3
STAT 101	3	BUSA 130	3
Electives	3	Electives	6
Total	12	Total	15

(Suggested electives: BIOL 19 *The Living Cell* (4 hrs.) and 139 *Biochemistry* (3 hrs.)

*MATH 14, 15, or 128 can be substituted for MATH 3 and 4.

**BIOL 15 & 17 can be substituted for BIOL 1-4.

Division of Occupational Therapy

Reginald J. Urbanowski, OTR/L, MS, Chair. (University of Alberta)

Degree Offered:

Masters of Occupational Therapy

Introduction

In fall, 1993, the WV Board of Trustees approved the establishment of a new Master's degree program at West Virginia University, leading to an entry-level master's degree in occupational therapy. The program at WVU accepted its first students into the professional program in the fall semester of 1996. The academic and fieldwork program requires three years to complete. Prior to application, students are required to complete 63 - 65 hours of prerequisite courses, which in most instances will take two years to fulfill.

The Profession of Occupational Therapy

Occupational therapy is a health profession whose services are provided to people of all ages with physical, mental or developmental disabilities. The purpose of occupational therapy is to help individuals achieve a maximum level of independence. The focus is developing the capacity to function in all activities (occupations) of daily life, including self care, work, and leisure, hence, the name *occupational therapy*.

Occupational therapy is a health and rehabilitation profession designed to help people regain and build skills that are important for health, well-being, security, and happiness.

Occupational therapists work with people of all ages who, because of physical, developmental, social, or emotional deficits, need specialized assistance in learning skills to enable them to lead independent, productive, and satisfying lives.

According to the U.S. Bureau of Labor Statistics, there will be a 55 percent increase in the number of available positions by the year 2005. Occupational therapists work in schools, hospitals, rehabilitation centers, home health agencies, skilled nursing homes, and private practice. Average starting salaries for new occupational therapists range between \$36,000 - \$39,000.

Accreditation Status

WVU's Division of Occupational Therapy has been granted *Developing Program Status* by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA. Graduates of the program will be able to sit for the national certification examination for the occupational therapist administered by the American Occupational Therapy Certification Board (AOTCB). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). Most states require licensure in order to practice; however, state licenses are usually based on the results of the AOTCB Certification Examination.

Admissions Process

This includes obtaining an application packet from the Admissions & Records Office (304)293-3521, available December 1st and completing that packet by March 1st. A personal interview may be required.

College Prerequisite Courses Include:

Course	Hours
English Composition	6
General (Introductory) Psychology	3
Life-Span Developmental Psychology	3
Abnormal Psychology	3
Sociology or Anthropology	3
Biology (with lab)	8
Chemistry (with lab)	4
Math 3 & 4 or 14	6
Physics (with lab)	8
Statistics (introductory)	3
Rural or Appalachian studies course in any discipline	3
Communication Studies	3
Completion of WVU's LSP requirements with courses in cluster A	12

WVU Students must consult the Student Advising Center prior to enrolling in prerequisite courses. These courses may be taken at any institution which offers equivalent courses. Any questions regarding prerequisite courses may be directed to the office of Academic Advising, (304) 293-5805. Equivalence may be determined by contacting the Transfer Desk, Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009.

Admission Standards

Normally, students apply to the program during their second year of college. They must have a minimum of 63 - 65 hours of college credit which includes the pre-requisites listed above. Students who already have a degree in another field are also eligible to apply. All applicants must meet the following criteria:

- Minimum GPA of 2.6, overall and prerequisites, (a higher GPA may be necessary given the competitive nature of the program).

- Minimum of 60 hours of volunteer or work experience with people with disabilities is required.
- Two letters of recommendations are also required, one from an occupational therapist or supervisor of volunteer/work experiences and the other from a professor who has recently taught the applicant.
- Completion of *all* prerequisite courses by the end of the semester of application (normally, second semester of sophomore year) is normally required. For the fall 1997 application period (only), students planning to complete their prerequisite courses during the summer term will be eligible for application.

Strong consideration will be given to residency and a commitment to stay in West Virginia to practice after graduation.

What to Expect

Like many professional programs, the curriculum in the master's entry level occupational therapy program is fairly fixed and intense. The first professional year will include courses in basic sciences and introductory professional courses. The second and third professional years will deal more specifically with training in occupational therapy theory and practice as administered across a wide variety of settings. *The professional curriculum includes three off-campus, full-time clinical experiences known as fieldwork.* Students are financially responsible for transportation, housing, and meal expenses related to clinical assignments.

Occupational Therapy Curriculum Plan

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
PHYS. 241	4	OTH 194	2
OTH 100	3	OTH 105	3
OTH 101	3	OTH 106	4
OTH 102	2	OTH 107	4
OTH 103	2	OTH 108	3
OTH 104	4	OTH 221	3
OTH 180	1	OTH 181	1
Total	19	Total	20

Sophomore

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
OTH 194	2	OTH 194	2
OTH 202	2	OTH 216	2
OTH 204	4	OTH 219	3
OTH 206	3	OTH 232	4
OTH 208	3	OTH 235	3
OTH 230	3	OTH 281	3
OTH 280	1	Total	17
Total	18		

<i>Summer Term</i>	<i>Hrs.</i>
OTH 240	3

Junior

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
OTH 300	2	OTH 350	3
OTH 301	3	OTH 351	3
OTH 303	2	OTH 395	3
OTH 305	3	OTH 395	3
OTH 320	3	OTH 353	3
OTH 325	3	OTH 381	2
OTH 380	2	Total	17
Total	18		

<i>Summer Term</i>	<i>Hrs.</i>
OTH 382	2
OTH 354	1
Total	3

WVU Entry Level Master's Program in Occupational Therapy

Fall Term - First Year

PHYS 241 - Mechanism of Body Function
OTH 100 - Clinical Anatomy
OTH 101 - Professional Foundations
OTH 102 - Survey of Clinical Problem-Solving & Scientific Inquiry
OTH 103 - Functional Movement Across the Lifespan
OTH 104 - Clinical Science I

Spring Term - First Year

OTH 194a - Fieldwork I
OTH 105 - Human Nutrition & Exercise Physiology
OTH 106 - Kinesiology Foundations of Clinical Practice
OTH 107 - Neurobiology Foundations of Clinical Practice
OTH 108 - Evaluation Procedures
OTH 221 - Developmental Life Tasks

Fall Term - Second Year

OTH 194b - Fieldwork I
OTH 201 - Clinical Sciences
OTH 202 - Clinical Decision Making
OTH 206 - Cardiovascular Evaluation & Treatments
OTH 208 - Tests and Measures in Occupational Therapy
OTH 230 - Introduction to Mental Health

Spring Term - Second Year

OTH 195a - Fieldwork II
OTH 216 - Clinical Decision Making
OTH 219 - Professional Attitudes and Values
OTH 232 - Evaluation & Treatment of Mental Health Disorders
OTH 235 - Therapeutic Activity

Summer Term - Second Year

OTH 240 - Fieldwork II

Fall Term - Third Year

OTH 300 - Professional Issues in Health Care Delivery Systems

OTH 301 - Business and Management for Physical and Occupational Therapists

OTH 303 - Physical and Occupational Therapy in Pediatrics

OTH 305 - Prosthetics and Orthotics

OTH 320 - Evaluation and Interventions in Work

OTH 325 - Evaluation and Treatment

Spring Term - Third Year

OTH 350 - Education in Occupational Therapy Practice

OTH 351 - Occupational Therapy in Prevention & Wellness

OTH 395a - Fieldwork IV

OTH 395b - Fieldwork IV

OTH 353 - Research in Physical & Occupational Therapy

Summer Term - Third Year

OTH 380 - Professional Development Seminar

OTH 381 - Research in Physical & Occupational Therapy

Physical Therapy

MaryBeth Mandich, PT, Ph.D. Interim Chair

Degree Offered:

B.S. in Physical Therapy

Note: The Division of physical therapy was given approval May 1996 by the West Virginia Board of Trustees to transition its current bachelor's degree program to an entry-level master's degree program (MPT). However, before the program can change, approval must be received from the Commission on Accreditation in physical therapy education (CAPTE). The physical therapy program plans to begin the entry level program fall, 1997, but a decision from CAPTE regarding the transition will not be determined until May 1997. Thus, the information contained in this catalog pertains to the BS degree program. For more information on the status of the MPT program, please contact the Division of Physical Therapy after May 15, 1997, at (304) 293-3610.

Nature of Program

The WVU physical therapy program was established in 1970 under the auspices of the School of Medicine to help meet the need for physical therapists in West Virginia. The program is accredited by the Commission on Accreditation in Physical Therapy Education, a specialized accrediting body recognized by the Council on Postsecondary Accreditation. One class of 30 full-time students is accepted each year for the final years of a baccalaureate degree program.

Students admitted into the program complete nine semesters (four are summer sessions) of combined classroom, laboratory and clinical education, and part-time and full-time supervised clinical practice in various clinics in West Virginia and other states. A bachelor of science degree is awarded to those completing the program, and entitles the graduate to apply for examination for state licensure. A license to practice physical therapy is required by all states.

Admission Requirements

Recommended high school preparation for physical therapy includes courses in biology, chemistry, algebra, trigonometry, physics, and social sciences. Computer literacy is recommended.

Because individualized instruction in laboratories and clinics is an essential component of the program, enrollment must be limited. All students who wish to enter the program must apply for admission and must have completed or be enrolled in the courses listed under “courses required for application”. These courses are available at most colleges and usually require two years to complete. Students with degrees in other fields are welcome to apply but must also complete these courses.

Courses Required for Application	Hr.	WVU Courses
Pre-Physical Therapy Courses		
Biology (with lab)	8	BIOL 1, 2 & 3, 4
Chemistry (with lab)	8	CHEM 15 & 16
Physics (with lab)	8	PHYS 1 & 2
Introductory Psychology	3	PSYC 1
Developmental Psychology (Life-span)	3	PSYC 141
Introductory Statistics	3	STAT 101
WVU Liberal Studies Requirements		
English Composition	6	ENGL 1 & 2
Cluster A courses*	12	
(Humanities and Fine Arts; courses in three disciplines, including two courses in one discipline)		
Cluster B courses*	6	
(Social and Behavioral Sciences; two courses in two different disciplines, neither of which is psychology)		

*See Liberal Studies section of the catalog for specific courses acceptable in each Cluster. Three hours in either Cluster A or Cluster B courses must focus substantially on the study of a foreign or minority culture or on women and/or issues of gender.

The courses listed are minimum requirements for application. Other recommended courses are human anatomy and human nutrition. Students are encouraged to pursue studies in additional courses of interest. Students who wish to substitute a course for one of those listed should contact the Division of Physical Therapy for permission and provide a written description of the proposed substitute.

Applicants must have both a minimum cumulative and a minimum pre-physical therapy science GPA of 3.0. All applicants must have taken the Allied Health Professions Admission Test prior to the application deadline, and submit two recommendations from physical therapists (not relatives) with whom they have worked in clinical settings. A minimum of 60, hours of clinical volunteer or work experience is recommended. It is suggested this experience be in at least two different settings.

Preference is given to West Virginia residents. A limited number of non-residents who have attended a West Virginia college or university, or who have other strong ties to the state, may also be considered.

Applicants who complete any of their pre-requisite courses at a college or university outside of West Virginia must submit a catalog or photocopy of the catalog description for all pre-requisite courses taken.

Application forms are available beginning December 1 from the Office of Admission and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815. All application materials must be received from the applicant no later than February 15. Qualified applicants are interviewed by the Physical Therapy Admissions Committee. Those considered to demonstrate the greatest potential for success are recommended for admission into the program.

Graduation Requirements

Students admitted into the program must complete all required courses of each term with a grade of at least C or P in each, and must maintain a minimum GPA of 2.5 each term. Any student who does not meet these requirements may be placed on probation, suspended, or dismissed from the program. The Division of Physical Therapy reserves the right to suspend or dismiss any student who does not perform at an overall level considered satisfactory for patient care.

In the second semester of the junior year, the student will begin part-time clinical rotations at affiliated sites under the supervision of a physical therapist. During a summer session after the junior year, the student will participate in one full-time clinical rotation for four weeks. In the senior year, the student will continue with clinical experiences during each semester.

After satisfactorily completing all the course work, the student will participate in two different clinical rotations for a total of 20 weeks. These clinical affiliation sites are in West Virginia and other locations. Students must be prepared to pay for travel, meals, and lodging while participating in clinical rotations.

Required Physical Therapy Curriculum

Junior Year

<i>Summer Session 2</i>	<i>Hrs.</i>
ANAT 102	3

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
PATH 128	2	ANAT 308	2
PHYS 241	4	PT 112	3
PT 110	3	PT 114	3
PT 111	4	PT 116	1
PT 200	3	PT 118	3
PT 120	3	PT 130	3
Total	19	Total	15

<i>Summer Session 1 or 2</i>	<i>Hrs.</i>
PT 116	0-3

Senior Year

First Semester

Hrs.

PT 271	2
PT 273	4
PT 275	3
PT 277	2
PT 279	4
PT 281	1
Total	16

Second Semester

Hrs.

PT 270	4
PT 272	2
PT 274	4
PT 276*	(3)
PT 278	5
PT 282	1
PT 285	3
Total	19

Summer I

Hrs.

PT 290	0-3
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Summer II

PT 290	0-3
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Fall

Hrs.

PT 290	0-3
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Medical Technology

Jean D. Holter, Ed.D., Director

Degrees Offered:

Bachelor of Science, Master of Science

Introduction

The WVU School of Medicine admitted the first medical technology students in the 1945-1946 academic year. In 1987, the program started a part-time curriculum, a refresher curriculum, and a career-laddering mechanism with Allegany Community College, West Virginia Northern Community College, and Fairmont State College.

The primary aim of the undergraduate medical technology program is to provide a strong educational background in the clinical laboratory sciences.

The purposes are:

- To provide a program that meets the academic standards of the University;
- To provide medical technologists for hospitals, public health, and research laboratories;
- To prepare medical technologists for teaching and supervisory positions;
- To provide an educational background accepted for graduate work.

The primary purpose of the graduate program in medical technology is to prepare students as supervisors of hospital clinical laboratories, to teach a specific laboratory area, and to direct a medical technology program.

Ruby Memorial Hospital (WVU Hospitals, Inc.), is the primary teaching hospital for the medical technology program. The hospital is part of the Robert C. Byrd Health Sciences Center of West Virginia University. The hospital is a tertiary care teaching hospital and referral center; it is a 376 bed facility. The clinical laboratories are on the third floor and occupy approximately one-fourth of the floor. The laboratories are full-service including hematology, chemistry, special chemistry, radioimmunoassay, blood bank, microbiology, mycology,

virology, and immunology. Satellite laboratories are available in the Physician Office Center and the Cancer Center. Students may be required to fulfill part of their rotations at extramural sites in West Virginia.

The medical technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The present accreditation, for seven years, will be reviewed in 2002.

Admission Requirements

Premedical Technology

Admission requirements for the first year (premedical technology) are the same as those for the College of Arts and Sciences

Medical Technology Program

Admission to the medical technology program includes course requirements, grade-point average, a personal interview, letters of recommendation, and the Allied Health Professions Admissions Test (AHPAT).

The prerequisite course requirements are:

English: six hours of composition and rhetoric (ENGL 1 and 2)

Biology: eight hours of general biology (BIOL1, 2, 3 and 4)

Chemistry: 12 hours: eight hours of inorganic chemistry (CHEM 15 and 16) and four hours of organic chemistry (CHEM 131)*

Physics: eight hours of general physics (PHYS 1 and 2)

Mathematics: six hours; minimal requirements are college algebra and trigonometry (MATH 3 and 4)

Liberal Studies Program: 21-24 hours of electives; 12 hours each of Cluster A and Cluster B

*Transfer students must complete an organic chemistry course(s) (8 hours) that includes aliphatic and aromatic compounds. The course must include a laboratory. Any student not completing CHEM 131 must take CHEM 133 and 135, 134 and 136, or an equivalent.

Applicants should have a minimum grade-point average of 2.5 (cumulative and science). Applicants may be admitted on probation if their grade-point average (cumulative or science) is less than 2.5. Applicants with less than a 2.0 grade-point average, either cumulative or science, will not be admitted. A grade-point average of 2.5 or above does not necessarily assure admission.

A personal interview with the Medical Technology Admission Committee is required.

Two letters of recommendation from instructors in physics, chemistry or biology are required.

Allied Health Professions Admissions Test (AHPAT) must be taken prior to applying to the Medical Technology Program. Testing is available at WVU in November and January. Further information can be obtained from the Medical Technology Program Office.

Admission of international students is in compliance with West Virginia University regulations. At least one science course (chemistry, physics, or biology) must be completed at an institution of higher education in the United States.

Application Procedure

Application forms for admission to the professional program are available after December 1 from the Office of the Assistant Director of Admissions and Records, West Virginia University Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815. There is an application fee of \$10.00. The priority date for returning the application form is January 15. The deadline date is February 1 if the student expects to enter the program the next fall semester.

Students at West Virginia University or Potomac State College are not transferred automatically from the preprofessional course to the professional course. Students are selectively admitted to the program.

Certification

Graduates from the medical technology program at West Virginia University are eligible to take national examinations for certification as medical technologists or clinical laboratory scientists. These examinations are conducted by national certification agencies such as American Society of Clinical Pathologists and the National Certification Agency. Many institutions require certification for employment.

Graduation Requirements

Junior Year: A student must maintain a grade-point average of 2.0 for each semester to be advanced to the senior year. Any student having one or more F's in a semester or more than one D at the end of the junior year may be suspended from the program. The Academic and Professional Standards Committee must recommend any student for advancement to the senior year. A satisfactory grade-point average does not assure advancement.

Senior Year: A student must maintain a grade-point average of 2.0 for each semester of the senior year. Graduation requires satisfactory completion of all academic work. Graduation requires the recommendation of the faculty of the School of Medicine.

Curriculum Plan

Pre-Medical Technology

First Year

First Semester	Hrs.	Second Semester	Hrs.
CHEM 15 Inorganic	4	CHEM 16 Inorganic	4
Elective*	3	ENGL 1 Comp. & Rhet	3
MATH 3 Algebra	3	MATH 4 Trigonometry	3
BIOL 1&3	4	BIOL 2 & 4	4
MTEC 1**Orientation	2	Total	14
Total	16		

Second Year

First Semester	Hrs.	Second Semester	Hrs.
Electives*	9	CHEM 131—Organic	4
PHYS 1	4	Electives*	6-9
ENGL 2 Comp. & Rhet.	3	PHYS 2	4
Total	16	Total	14-17

* Electives from Cluster A and Cluster B are to be selected to meet the Liberal Studies Program requirements.

**MTEC 1 is not a required subject. It is highly recommended that all students take this course. MTEC 1 is offered each semester.

Medical Technology

Third Year (Medical Technology 1)

First Semester	Hrs.	Second Semester	Hrs.
MTEC 100	4	MBIO 224	1
MTEC 202	2	MBIO 223	5
BIOC 139	5	MTEC 101	4
PHYS 241	4	MTEC 210	1
Elective	3	MTEC 291	2
Total	18	MTEC 229	1
		Total	14

Fourth Year (Medical Technology 2)

Students receive didactic and clinical instruction in the WVU Hospitals, Inc. laboratories after completion of the junior year. The course of study begins with the summer session and covers three academic semesters. If the student has excessive absences during the senior year, competencies not completed must be made up during the summer sessions.

Students register for the following courses during the three semesters of study.

	Hours
MTEC 200 <i>Orientation</i>	No Credit
MTEC 201 <i>Phlebotomy</i>	1
MTEC 220 <i>Immunohematology and Blood Banking</i>	2
MTEC 221 <i>Immunohematology and Blood Banking Laboratory</i>	5
MTEC 230 <i>Clinical Chemistry</i>	2
MTEC 231 <i>Clinical Chemistry Laboratory</i>	5
MTEC 240 <i>Clinical Hematology</i>	2
MTEC 241 <i>Clinical Hematology Laboratory</i>	5
MTEC 250 <i>Clinical Microbiology</i>	2
MTEC 251 <i>Clinical Microbiology Laboratory</i>	5
MTEC 260 <i>Instrumentation</i>	2
MTEC 265 <i>Laboratory Management</i>	2
MTEC 270 <i>Clinical Microscopy</i>	1
MTEC 271 <i>Clinical Microscopy Laboratory</i>	1
MTEC 275 <i>Medical Relevance of Laboratory Analysis</i>	1
MTEC 280 <i>Clinical Immunology</i>	3
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Master of Science

Program in Medical Technology

Admission

Applicants must have a baccalaureate degree in medical technology or an allied health field from an accredited college or university and must be a certified medical technologist with an acceptable certifying agency.

The area of concentration desired by the student is considered in the undergraduate record evaluation as follows:

Individuals who desire to do special study in clinical chemistry, hematology, or immunohematology must have completed a minimum of eight hours in physics, three hours in mathematics, and 12 hours in chemistry to include organic chemistry. Individuals who desire to do special study in microbiology

must have completed a minimum of 12 hours of chemistry including organic chemistry and 16 hours in the biological sciences.

A minimum of one year's experience in a clinical laboratory is required. Applicants must have a minimum undergraduate grade-point average of 2.5 (based on a 4 point scale). Results of the aptitude portion of the Graduate Record Examination must be presented. Two professional letters of recommendation are required.

Application Procedure

A preliminary application is filed in the medical technology program office, along with two reference letters and the results of the aptitude portion of the Graduate Record Examination. These three items are reviewed, and if all prerequisites are met, the applicant must make formal application to West Virginia University. Once the formal application and grade transcripts are received, the file is reviewed by the Admissions Committee. A personal interview is required before final admission to the program.

Graduation Requirements

- Satisfactory completion of all course work with a 3.0 GPA.
- A problem study in the major/minor area.
- Successful completion of a written comprehensive examination in major and minor interest fields.
- Successful completion of an oral defense of the problem study.

Master of Science

It is expected that the students who enter the graduate program in medical technology at West Virginia University will have a goal in mind and will have a special field of interest in medical technology. The course of study the student follows is tailored to the needs of the student as far as it is possible to do so. A minimum of 36 semester hours of credit, including a problem study, is required for the degree.

The student selects:

- A major area of concentration from education, supervision, or administration.
- A minor area from clinical microbiology, clinical chemistry, clinical hematology, or immunohematology.

A minimum of 15 semester hours of work from the following courses is selected, dependent upon the major area of concentration.

Required Courses	Hours
Educational Psychology 320 <i>Introduction to Research</i>	3
If the major area is education, the following courses are available:	
CHPR 320 <i>Roles and Functions of Health Education</i>	3
ED A 320 <i>Personnel Administration</i>	3
ED A 351 <i>Administrative Procedures in Adult Education</i>	3
ED A 462 <i>Higher Education Law</i>	3
ED A 463 <i>Higher Education Finance</i>	3
ED F 320 <i>Philosophic Systems and Education</i>	3
If the major area is supervision and/or administration, the following courses are available:	

ED A 320 <i>Personnel Administration</i>	3
ED A 462 <i>Higher Education Law</i>	3
ED A 463 <i>Higher Education Finance</i>	3
PUBA 341 <i>Administrative Organization and Management</i>	3
PUBA 344 <i>Public Personnel Administration</i>	3
PUBA 345 <i>Public Administration and Policy Development</i>	3
The following courses are available for either major for additional credit:	
ED P 231 <i>Sampling Methods</i>	3
ED P 260 <i>Media and Microcomputers in Instruction</i>	3
ED P301 <i>Introductory Behavior Analysis</i>	3
ED P321 <i>Design of Experiments</i>	3
ED P 343 <i>Statistical Analysis in Education</i>	3
ED P364 <i>Precision Teaching</i>	3
ED P370 <i>Programmatic Research</i>	3
CHPR 308 <i>Community Health: Death Education</i>	3
CHPR 309 <i>Community Health: Drug Education</i>	3

Students may select courses in schools and colleges at West Virginia University other than the School of Medicine. Courses in management, economics, and education are available, as well as courses in the scientific disciplines of medical technology.

A course in statistical methods such as Educational Psychology 311, Statistics 311, or Community Medicine 311 is strongly recommended.

All students must complete a minimum of 18 semester hours in a science related to medical technology including MTEC 300 *Seminar* (three hours) and MTEC 397 *Problem Study* (six hours).

All full-time students register for one hour each semester in MTEC 300. Seminars include laboratory management, education in medical technology, and timely topics. A minimum of three hours of seminars to include all three of the above topics is required.

All students are required to pursue study on a problem in their areas of concentration. This study is reported in a thesis-style manuscript. For this study and report, students register in MTEC 397.

The total number of hours in MTEC 397 is determined by the student's program advisor. As many as nine semester hours in MTEC 397 may be taken during one semester or, by arrangement with the advisor, credit hours may be taken over several semesters. In the final compilation for degree requirements, only six semester hours in MTEC 397 will count toward the fulfillment of the 36 required semester hours for the degree, even though the student may have registered for as many as 15 hours in MTEC 397.

At the discretion of the student's program advisor, other requirements in teaching, supervision, and administration may be necessary. The advisor works out with the student a plan of study for the student's entire graduate program. This plan is made at the end of the first semester of the student's graduate study. A copy of this plan of study is filed in the Health Sciences Center Graduate Programs Office. The student's problem study committee is also formed at this time.

Public Health

Department of Community Medicine

Bill Carlton, EdD, MS, MPH Program Director

Alan Ductman, MD, MSc, Interim Chair, Community Medicine and Director,
Institute of Occupational and Environmental Health

Degree Offered: Master's in Public Health

Master's in Public Health

The MPH Program prepares students to fill roles where decisions are being made, such as in managed care and other integrated delivery systems, the medical products industry, health departments, and other governmental agencies, consumer groups, and community-based organizations.

The program admits qualified physicians and non-physicians. Physicians may also apply to the Occupational Medicine Residency Program and may designate the MPH as part of their residency.

The goals of the MPH Program are:

- To improve the education and professional impact of those entrusted with public health responsibility in West Virginia.
- To improve the cost effectiveness, quality assurance, and competitive position of population-driven health policy decisions in West Virginia.
- To increase the interdisciplinary collaboration, and information base for that collaboration, of numerous different kinds of personnel for whom the training is appropriate.
- To measure and improve the health status of the population of West Virginia.

Admissions Requirements

Applications must be received by June 30 for admission to the fall (August) semester; December 1 for admission to the spring (January) semester; and April 30 for admission to the summer (May) semester. Requirements include the General test of the Graduate Record Examination, transcripts, Application for Admission to Graduate Education at WVU, a one page typed essay to include the applicant's career objective, and a resume/CV. These documents should be forwarded to the MPH Program Manager, WVU School of Medicine, P.O. Box 9145, Morgantown, WV 26506-9145. Full-time and part-time students are admitted.

Performance Standards

Full-time students can complete the program in four semesters including the practicum.

Students are expected to maintain a 3.0 GPA. A faculty review is required if two grades of C or less are recorded. Three grades of C or lower will result in academic suspension.

Grades lower than C will not count toward satisfying graduate degree requirements.

Students should petition for admission to candidacy for the degree by filing a plan of study approved by faculty advisors before completion of 9 credit hours.

Program Requirements

Program requirements include completion of 22 required courses, 12 hours electives, and a nine hour practicum.

The required core courses are:	Hrs.
CMED 311 <i>Biostatistics</i>	3
CMED 325 <i>Biology, Society, and Human Hlth</i>	3
CMED 340 <i>Perspectives in Public Health</i>	3
CMED 350 <i>Environmental Health</i>	3
CMED 360 <i>Public Health Epidemiology</i>	3
CMED 391A <i>Behavioral Science in PH</i>	3
CMED 391B <i>Policy and the Health System</i>	3
CMED 496 <i>Seminar</i>	1

School of Nursing

School of Nursing Administration

E. Jane Martin, Ph.D., R.N., F.A.A.N., Dean

Karen E. Miles, Ed.D., R.N., Associate Dean for Academic Affairs

Joan E. Watson, Ph.D., R.N., F.A.A.N., Associate Dean for Research

Michelle Janney, Ph.D., R.N., Associate Dean for HSC Clinical Services

Jacqueline W. Riley, M.N., R.N., Assistant Dean for Student & Alumni Affairs

Mona M. Counts, Ph.D., R.N., Chairperson, Department of Health Promotion/
Risk Reduction

Lynne Ostrow, Ed.D., R.N., Chairperson, Department of Health Restoration

Patricia S. Simoni, Ed.D., R.N., Chairperson, Department of Health Systems

Mary Jo Butler, Ed.D., R.N., Director, Charleston Division

Jacqueline Stemple, Ed.D., R.N., Director, Program Evaluation

Degrees Offered

Bachelor of Science in Nursing

Master of Science in Nursing

The mission of West Virginia University School of Nursing is to serve as a center for nursing education, research, and practice. The goals of the School, which flow from the missions of the school, the Health Sciences Center, and the University, guide the development of the undergraduate and graduate programs in nursing.

The basic B.S.N. program can be completed in four (4) years in Morgantown or by attending two (2) years in Morgantown and two (2) years in Charleston. Consortium programs with Glenville State College and Potomac State College allow students to complete the first two (2) years at Glenville or Potomac State and the last two (2) years in Charleston or Morgantown.

Class and course requirements are flexible to accommodate the registered nurse who is a full-time worker and a part-time student. Both the baccalaureate completion program for registered nurses and graduate programs are offered in multiple off-campus sites through the West Virginia Satellite Network (SATNET) and other advanced telecommunications systems.

Further information about all programs may be obtained by writing Assistant Dean for Student & Alumni Affairs, WVU School of Nursing, 6702 Health Sciences South, P.O. Box 9600, Morgantown, WV 26506-9600; or Director, Charleston Division, WVU School of Nursing, WVU Health Sciences Center Charleston Division, 3110 MacCorkle Avenue, SE, Charleston, WV 25304-1299, for Glenville, Charleston, and Parkersburg programs.

The Philosophy of School of Nursing

Nursing is an art and a science practiced by professionals in concert with individuals, families and communities for the purpose of promoting health. Nursing is a learned discipline whose perspective is the person-environment health process. The person is inseparable from the environment and interacts dynamically with the environment as a unified whole, thus maintaining integrity. This interaction enables the pursuit of choices and goals. Health is a process through which individuals, families, and communities maximize potential for living a self-determined life.

Health is promoted through the caring presence of the nurse in situations where capabilities are discovered, strengths are maximized, and development is nurtured. The caring presence is a relationship in which the nurse interacts with persons in the creative application of the discipline's art and science. Nurses collaborate with others to maximize resources for the benefit of the person.

The discipline of nursing is taught in an academic setting in which students must be educated to practice in a rapidly changing society. The knowledge base for nursing builds on content from the humanities and the sciences. Learning is a life long process which is enhanced in a climate of personal acceptance of the learner as an integrated being. Faculty and students share the responsibility for creating an atmosphere that fosters the development of intellectual curiosity, systematic inquiry, critical thinking, self direction, caring relationships, and a commitment to continued learning.

Nursing is accountable to society for ensuring that the public interest is protected and served. To promote the relevance of the discipline to societal needs, faculty contribute to the development and evaluation of the discipline by engaging in creative endeavors that reflect a synthesis of teaching, practice, and research.

Undergraduate education in nursing prepares individuals capable of beginning professional nursing practice and provides a foundation for graduate education in nursing. Graduate education in nursing at the masters level prepares persons to engage in advanced nursing practice and provides a foundation for doctoral study in nursing.

Accreditation

The National League for Nursing is the recognized accrediting agency for nursing programs. The baccalaureate program received initial accreditation with graduation of the first class in 1964. The master's program was initially accredited in 1981. Both programs have continued to maintain accreditation.

Undergraduate Program

The baccalaureate program (BSN) accommodates both high school or college students who aspire to a career in nursing and registered nurses (R.N.) who are licensed graduates of associate degree and diploma nursing programs and want to continue their career development.

Basic students may enroll on the Morgantown campus. They may also enroll for the freshmen and sophomore years at Glenville State College or Potomac State College. Students who begin their courses at Glenville or Potomac State College complete their junior and senior years on the Morgantown or Charleston campus. Nursing courses begin in the sophomore year and extend through the senior year. As part of the University's System's commitment to the West Virginia Rural Health Education Partnerships (WVRHEP) program and health care for all West Virginians, all health sciences students in state supported schools are required to complete a rural rotation of at least three months prior to completion of degree requirements. **Nursing students will complete this rotation as a designated WVRHEP site during their senior year.**

Registered nurses can complete requirements for a baccalaureate degree in nursing on both the Morgantown and Charleston Health Sciences Center campuses and through extension at Parkersburg and selected other sites. At the extension sites all required non-nursing courses are earned in institutions of higher learning in the respective locations. Credit may be earned by enrollment, College Entrance Examination Board Advanced Placement Program, and advanced standing examination available in the particular institution. Nursing courses are offered at a rate of four to eleven credit hours a semester and are scheduled to provide opportunity for completion of degree requirements in two to three years.

Undergraduate education in nursing prepares graduates to begin professional nursing practice and provides a foundation for graduate education in nursing. Upon completion of the baccalaureate curriculum, the nurse can practice in a variety of settings and with clients across the life span. The graduate uses process skills to maintain, restore, or improve health states of clients, and applies leadership theory to effect change. The baccalaureate graduate uses a conceptual base to evaluate and modify the nursing role in relation to client needs and expectations and is prepared to support efforts in expanding nursing knowledge.

Fees, Expenses, Housing, Transportation

Registering students pay the fees shown in the WVU *Health Sciences Center Catalog* charts, plus special fees and deposits as required. Fees are subject to change without notice. Students' expenses vary widely according to the course of study and individual tastes. Students are expected to provide their own transportation, equipment and instruments for the clinical courses. Specific immunizations, including hepatitis B, are required.

Information concerning financial assistance and application forms may be obtained by visiting or writing the HSC Financial Aid Office, Health Sciences North, PO Box 9810, Morgantown, WV 26506-9810, telephone (304) 293-3706.

The University Housing and Residence Life Office, G-18 Towers (phone (304) 293-3621), provides information concerning University-owned housing. The Student Life Office in Moore Hall (phone (304) 293-5611) provides information concerning privately owned, off-campus housing.

Some clinical experiences require the student to travel in a multi county area. Students are responsible for providing their own transportation to all clinical experiences.

Admission to Basic Program

Admission to the basic program is highly competitive. Meeting the minimum requirements to apply does *NOT* guarantee admission. Ninety percent of the space in each entering class is given to West Virginia residents. The opportunity for direct admission as freshmen is available to selected students with a high school grade point average of 3.6 or higher and an ACT composite score of 26 or better.

Applicants are eligible for review by the Admissions, Progression, and Graduation Committee after completion of one full semester of college course work. The academic record is the major factor in the decision on admission. To qualify for consideration, a West Virginia resident must have a grade-point average of 2.5 or above, on a scale of 0.0 to 4.0 on all college work attempted.

Application to the basic program in Morgantown and at Potomac State College must be made by February 15 of the year the candidate wishes to be admitted. Application forms are distributed after December 1 by the Health Sciences Center Office of Admissions and Records. Completed applications and the required application fee, payable to West Virginia University, may be presented in person or mailed directly to: ATTN: Nursing Secretary, WVU Office of Admissions and Records, 1170 Health Sciences Center North, P.O. BOX 9815, Morgantown, WV 26506-9815. February 15 is the deadline for receipt of all application materials, including transcripts.

Application to the Glenville State College-West Virginia University School of Nursing joint program follows the schedule described above. Application forms are available from the Office of Student Services, Charleston Division of WVU Health Sciences Center, 3110 MacCorkle Avenue S.E., Charleston, WV 25304-1299. Completed applications for the consortium program and the required application fee, payable to West Virginia University, are mailed directly to the Student Affairs Coordinator, Charleston Division, WVU Health Sciences Center, 3110 MacCorkle Avenue, SE, Charleston, WV 25304-1299.

Admission as a Transfer Student

An applicant with nursing credit from an accredited college or university is eligible for consideration for admission by presenting a record of courses comparable to those required in this curriculum and meeting other School of Nursing admission requirements. The applicant must provide a statement of good standing from the program in which currently enrolled. Acceptance and placement in the program is dependent on the individual's academic record and the number of spaces available in the program. Application should be initiated three months prior to the beginning of the semester in which the applicant wishes to begin nursing courses. Transcripts and other required materials must be received no later than two months before the start of the entering semester. Candidates apply to ATTN: Nursing Secretary, HSC Office of Admissions & Records, 1170 WVU Health Sciences Center North, P.O. BOX 9815, Morgantown, WV 26506-9815, requesting consideration for advanced placement as a transfer student.

Admission for Registered Nurses

Registered nurses are admitted directly to the School of Nursing. Acceptance and placement in the program are dependent upon the individual's academic record and upon the number of spaces available in the program. An unrestricted license to practice nursing and a grade-point average of 2.5 or better on all college work attempted are required to be eligible for consideration. Candidates with a restricted license will be considered on an individual basis. Applicants whose grade-point average falls below 2.5 may petition to the Dean for special consideration. Registered Nurses who wish to take only selected satellite courses may apply for non-degree seeking status.

Application forms for the Morgantown Campus and extension sites may be obtained from ATTN.: Nursing Secretary, Health Sciences Center Office of Admissions and Records, 1170 WVU Health Sciences Center North, PO BOX 9815 Morgantown, WV 26506-9815. Application forms for the Charleston Division and Parkersburg extension site may be obtained from the Student Affairs Coordinator, Charleston Division, WVU Health Sciences Center, 3110 MacCorkle Avenue, SE, Charleston, WV 25304-1299.

Academic Standards and Graduation Requirements

To be in good academic standing, students must: (1) maintain a cumulative grade-point average of 2.5 or better in all work attempted and (2) pass all courses with a grade of C or better. A student who receives a grade of D, F, WU, or W in a required nursing course may repeat that nursing course ONCE. A student may repeat ONLY TWO nursing courses. Students must complete with a grade of C or better, any nursing course in which a grade of D, F, WU, or W has been received. Students who do not maintain a cumulative GPA of 2.5 or better will be placed on probation for one semester. Students on probation who do not raise their cumulative GPA to 2.5 or better after one semester will be dismissed from the School of Nursing. Nursing courses and pre- and co-requisite courses in which students earn a grade of D, F, WU, or W must be repeated prior to the student's progression to the next course/s in the nursing sequence. Students who repeat a nursing course and earn a grade of D, F, WU, or W will be dismissed from the School of Nursing. Any general education course that is not a pre- or co-requisite of nursing courses and in which a grade of D has been earned must be repeated prior to graduation if it is to be counted toward graduation requirements. The baccalaureate of science in nursing degree is conferred upon completion of 137 hours and all required courses.

Curriculum

The usual curriculum progression for the **basic** student is presented in the suggested plan of progression.

For the registered nurse student, a minimum of 30 hours of general education courses that meet the University Liberal Studies Program and School of Nursing requirements should be completed before enrollment in the first nursing courses and Nursing 61 *Health Assessment*. It is recommended that the 30 hours be selected from the freshman and sophomore general education courses listed in the "Suggested Plan of Progression." Special attention should be given to the physical, biological, and psycho-social sciences. Completion of additional general education courses beyond the 30 hours is recommended prior to beginning nursing courses if the R.N. student wishes to carry a part-time course load.

The purpose of the first nursing courses is to facilitate transition into professional nursing. Special emphasis is placed on socialization into role and expectations of this role. **An unrestricted West Virginia R.N. license is required for enrollment in the first nursing courses.**

Graduates of associate degree programs establish lower-division nursing credit by the transfer of hours. Graduates of diploma programs establish lower division credit in nursing by successful completion of selected N.L.N. achievement examinations.

Upon successful completion of the first nursing courses, establishment of lower division nursing credit, and completion of the general education course requirements, the R.N. student is eligible for matriculation in senior level courses. Certification in school health nursing is available to students who meet additional course and experiential requirements. An R.N. to M.S.N. track is being planned. Contact the Office of Student & Alumni Affairs for the latest information.

B.S.N. Suggested Plan of Progression

First Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
CHEM 11	4	CHEM 12	4
PSYC 1	3	ENGL 1	3
SOCA	3	BIOL 2 & 4	4
HN&F 71	3	PSYC 141	3
Cluster A or MATH 3	3	Nursing 10	3
Total	16	Total	17

Second Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
NSG 21	3	NSG 41	2
NSG 23	1	NSG 43	2
NSG 25	3	NSG 45	4
ANAT 101	4	PHYS 141	4
MBIO 26	4	PHARM 160	3
Engl 2	3	NSG 61	3
Total	18	Total	18

Third Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
NSG 131	2	NSG 151	2
NSG 133	2	NSG 153	2
NSG 135	5	NSG 155	5
NSG 136	3	NSG 156	3
STAT 101	3	NSG 199	1
Cluster A/B	3	Cluster A/B	3-6
Total	18	Total	16-19

Fourth Year

<i>First Semester</i>	<i>Hrs.</i>	<i>Second Semester</i>	<i>Hrs.</i>
NSG 221	3	NSG 241	3
NSG 223	2	NSG 243	2
NSG 225	6	NSG 245	6
NSG 276	3	Elective (optional)	3
Cluster A	3	Cluster A	3
Total	17	Total	14-17

The sequence of course may vary from campus to campus.

Graduate Program

The School of Nursing offers a program of study leading to the Master of Science in Nursing (MSN) degree in rural primary health care with preparation in advanced practice nursing, nursing administration, or nursing education. The emphasis of advanced practice is on the vulnerable family population with specialization in children's health, elder health, or women's health. Sub-specialties are potentially available. The program is offered at the University main campus in Morgantown and at selected extension sites.

The graduate program offers a curriculum which allows students to enroll on a part-time or full-time basis. Throughout the curriculum, students are guided in the processes of self-development aimed at pursuing excellence in scholarly and professional endeavors. The program allows flexibility within the basic curricular structure through the individualization of learning experiences, electives, master's paper, thesis, and the opportunity to investigate an area of interest in advanced study.

The pattern and duration of the student's study plan is determined in consultation with a faculty advisor and is based upon the student's background and goals. The program can be completed in four semesters of full-time study at the Morgantown campus. The average full-time load is 9-12 credit hours per semester.

Graduate education in nursing prepares clinicians capable of leadership in developing and expanding nursing knowledge, skills, and practice competencies in light of societal needs. Preparation at the master's level provides the opportunity for the student to demonstrate self-direction and effective interactions with other health professionals in improving nursing practice and the health care delivery system. The master's graduate is able to provide quality health care in a variety of settings while clarifying and redefining nursing roles.

Admission Requirements

These criteria must be met for *Regular* admission to graduate study in the School of Nursing. The applicant must:

1. Meet WVU requirements for admission to graduate study.
2. Have a cumulative grade point average of 3.0 or higher on a 4.0 scale on all college work attempted.
3. Have a total GRE score of 1250 or higher within the last 5 years with minimum scores of 400 on the verbal and analytical scales and 350 on the quantitative scale.
4. Have a current, unrestricted RN license in at least one state.
5. Be a B.S.N. graduate of an N.L.N. accredited school.
6. Have completed 3 credits of statistics acceptable for transfer with a grade of C or better.
7. Have completed a health assessment course which included physical examination skills with a grade of C or better and acceptable for transfer.
8. Submit three (3) letters of reference.
9. Submit a typewritten statement of professional goals (limited to two (2) typewritten, double-spaced pages).

A B.S.N. degree is mandatory. Applicants who do not meet one or more of the other criteria will be considered for *Provisional* admission on an individual basis.

The application process must be *completed by* March 1 for summer enrollment, June 1 for fall enrollment and October 1 for spring enrollment. Class sizes are limited based on available faculty resources and space.

Applicants for graduate study need to complete the following steps in order to be considered for admission:

1. Complete two application forms as indicated below and return to the appropriate offices to avoid unnecessary delay in the review process.
 - a. Application for Admission to Graduate Studies (available from Admissions and Records). To be returned with the non-refundable service fee to: Office of Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009.
 - b. Application for Admission to Graduate Study in the School of Nursing Programs (available from Student Affairs Office). To be returned to: WVU School of Nursing Student Affairs Office, P.O. BOX 9600, Morgantown, WV 26506-9600.
2. Request an official transcript of records from each college or university attended. Transcripts and records should be sent directly to the WVU Office of Admissions and Records, Graduate Admissions Unit, P.O. BOX 6009, Morgantown, WV 26506-6009.
3. Send the three recommendations directly to WVU School of Nursing Student Affairs Office, PO BOX 9600, Morgantown, WV 26506-9600. The parameters used for review of applicants include: academic achievement, professional experience, career goals, and recommendations. Once admitted the student is assigned a faculty advisor who guides the student in curricular and academic matters. Enrollment in nursing courses is based on readiness and availability of space.

Progression Standards

In order to progress in the Master of Science in Nursing curriculum, a student is expected to meet the following performance standards:

1. Achieve an overall academic grade point average of at least a 3.0 in all work attempted in the master's program. A student may only carry forward one C grade in a nursing course. A second C in a nursing course will result in dismissal from the program.
2. A student who falls below the 3.0 GPA on 9 or more credit hours has one semester to bring up their GPA to the 3.0 requirement.
3. A student may repeat only one nursing course and only one time.

Degree Requirements.

*Completion of 44 or 47 semester credit hours, including 34 hours in nursing and seven hours of cognates specific to the area of concentration.

*Completion of a master's paper (three hours) or thesis (six hours).

*Pass comprehensive examinations.

*Removal of all conditions, deficiencies, and incomplete grades. Credit hours for courses in which the grade is lower than C will not count toward satisfying graduate degree requirements.

Required courses must be taken for letter grades (A, B, C). Electives may be opted for pass (P) or fail (F) grades, subject to the approval of the advisor.

M.S.N. Curriculum

M.S.N. Nursing Theory, Practice, and Research (37-40 hours) Hrs.

NSG 322 <i>Theory/Critical Analysis</i>	3
NSG 324 <i>Research Evaluation, and Statistics</i>	5
NSG 326 <i>Health Policy, Issues, and Ethics</i>	3
NSG 332 <i>Concepts of Advanced Nursing</i>	2
NSG 333 <i>Family, Community, Rural Health Systems</i>	2
NSG 336 <i>Clinical Diagnosis Across the Life Span</i>	3
NSG 340/50/60/70/80 <i>Speciality Course</i>	4
NSG 341/51/61/71/81 <i>Speciality Course 1</i>	6
NSG 342/52/62/72/82 <i>Speciality Course 2</i>	6
NSG 397 <i>Research (master's paper 3 credits</i> <i>or Thesis - 6 credits)</i>	3-6
Subtotal	37-40
Plus <i>Speciality Cognates</i>	7
Total	44-47

M.S.N. Suggested Plan of Study

(Note: all courses are not available every semester).

First Year (full-time)

<i>Fall Semester</i>	<i>Hrs.</i>	<i>Spring Semester</i>	<i>Hrs.</i>
N322 <i>Theory *</i>	3	N324 <i>Research *</i>	5
N332 <i>Concepts *</i>	2	N333 <i>Rural Family *</i>	2
P241 <i>Physiology</i>	4	<i>Pharmacology</i>	3
Total	9	Total	10

Second Year (full-time)

<i>Fall Semester</i>	<i>Hrs.</i>	<i>Spring Semester</i>	<i>Hrs.</i>
<i>Speciality Cognate</i>	4	<i>Practicum II</i>	6
<i>Practicum I</i>	6	<i>Paper</i>	3
Total	10	Total	** 9

First Year (part-time)

<i>Fall Semester</i>	<i>Hrs.</i>	<i>Spring Semester</i>	<i>Hrs.</i>
N322 <i>Theory *</i>	3	P241 <i>Physiology</i>	4
N332 <i>Concepts *</i>	2	N333 <i>Rural Family *</i>	2
Total	5	Total	6

Second Year (part-time)

<i>Fall Semester</i>	<i>Hrs.</i>	<i>Spring Semester</i>	<i>Hrs.</i>
<i>Speciality Cognate</i>	4	<i>Research *</i>	5
Total	4	<i>Pharmacology</i>	3
		Total	8

Third Year (part-time)

<i>Fall Semester</i>	<i>Hrs.</i>	<i>Spring Semester</i>	<i>Hrs.</i>
<i>Practicum II</i>	6	<i>Paper</i>	3
Total	6	Total	** 3

<i>Summer I</i>	<i>Hrs.</i>	<i>Summer II</i>	<i>Hrs.</i>
N326 Policy *	3		
N336 Diagnosis *	3	Continued in Summer II	3
			6
<i>Summer I</i>	<i>Hrs.</i>	<i>Summer II</i>	<i>Hrs.</i>
N326 Policy *	3		
N336 Diagnosis *	3	Continued in Summer II	3
Total	6	Total	3

<i>Summer I</i>	<i>Hrs.</i>	<i>Summer II</i>	<i>Hrs.</i>
Practicum I	6	Continued in Summer II	6
Total	6	Total	6

<i>Summer I</i>	<i>Hrs.</i>
Paper	3
Total	** 3

<i>Summer I</i>	<i>Hrs.</i>	<i>Summer II</i>	<i>Hrs.</i>
N332 Concepts	2	N333 Rural Family	2
Total	2	Total	2

Spring Admission

First Year

<i>Spring Semester</i>	<i>Hrs.</i>
N322 Theory	3
P241 Physiology	4
Total	7

Second Year

<i>Fall Semester</i>	<i>Hrs</i>	<i>Spring Semester</i>	<i>Hrs.</i>
N326 Policy	3	N324 Research	5
N336 Diagnosis	3	Pharmacology	3
Total	6	Total	8

Third Year

<i>Fall Semester</i>	<i>Hrs.</i>	<i>Spring Semester</i>	<i>Hrs.</i>
Practicum I	6	Practicum II	6
Total	6	Total	6

* = MDTV Co. ** = Total Credit Hours - 44.

School of Pharmacy

George R. Spratto, Ph.D., Dean

Carl J. Malanga, Ph.D., Associate Dean for Academic Affairs

Calvin C. Brister, Ph.D., Assistant Dean for Student Affairs

Joseph K. H. Ma, Ph.D., Interim Assistant Dean for Research and Graduate Programs

Degrees Offered:

B.S. in Pharmacy (last entering class, fall 1997)

Post-Baccalaureate Doctor of Pharmacy (last entering class, fall 1997)

Entry Level Doctor of Pharmacy (first entering class, fall 1998)

M.S., Ph.D. in Pharmaceutical Sciences

Introduction

Pharmacy was first offered at West Virginia University as a department in the School of Medicine, beginning in 1914. It became the College of Pharmacy in 1936 and the School of Pharmacy in 1958. In 1960, the School of Pharmacy changed from a four-year to a five-year program. The Bachelor of Science in pharmacy curriculum comprises three years of professional study and the Doctor of Pharmacy (Pharm. D.) comprises four years of professional study, with each program preceded by a minimum of two years of pre-pharmacy study in an accredited college of arts and sciences.

A primary objective of the School of Pharmacy is to educate practitioners for current and future roles in the profession of pharmacy. To meet this objective, the curriculum provides the student with the scientific and technical knowledge and communication skills required to practice the profession and inculcates in the student a concept of the pharmacist's professional responsibilities as a provider of pharmaceutical care and as a guardian of the public health.

Most pharmacy graduates enter practice in community or institutional pharmacies; however, positions are also available in various government agencies and professional organizations. In addition, the pharmaceutical industry provides various opportunities in promotion, distribution, production, and research. Pharmacists are eligible for commissions in the armed forces and for positions with the U.S. Public Health Service. Pharmacists also may prepare for careers in teaching and research through graduate study.

WVU School of Pharmacy offers M.S. and Ph.D. programs in the pharmaceutical sciences. Students may specialize in pharmacy, pharmaceuticals, medicinal chemistry, pharmaceutical chemistry, biopharmaceutics/pharmacokinetics, pharmacology and behavioral and administrative pharmacy.

Accreditation

The School of Pharmacy is accredited by the American Council on Pharmaceutical Education. The council is composed of members from the American Pharmaceutical Association, National Association of Boards of Pharmacy, American Association of Colleges of Pharmacy, and American Council on Education.

The School of Pharmacy holds membership in the American Association of Colleges of Pharmacy, whose objective is to promote the interests of pharmaceutical education. All of the AACP member institutions must maintain certain requirements for entrance and graduation.

Legal Requirements and Reciprocity

To qualify for examination for licensure by the West Virginia Board of Pharmacy, the applicant must be not less than 18 years of age and of good moral character. Further, the applicant must be a graduate of an accredited school of pharmacy, and must meet the internship requirements set by the West Virginia Board of Pharmacy.

Interns must be registered with the West Virginia Board of Pharmacy and must be enrolled in or a graduate of an accredited school of pharmacy to gain experience acceptable for the internship requirement. Details may be obtained from the Office of the Dean.

School of Pharmacy graduates are eligible for examination to practice pharmacy in any state. Graduates who successfully pass the West Virginia Board of Pharmacy examination are privileged to reciprocate with forty-eight other states, and with the District of Columbia and Puerto Rico, provided they meet the licensure requirements of these states.

Admission

All students seeking enrollment in the School of Pharmacy must comply with regulations appearing in this catalog and the *WVU Undergraduate Catalog*. Students preparing for the study of pharmacy may satisfy the course work requirements for entrance into the School of Pharmacy entry level Pharm. D. program by successfully completing the following course selections, or their equivalents:

Pre-Pharmacy Requirements	Sem. Hr. Credit	WVU Courses Meeting Requirements
English Composition	6	ENGL 1 & 2
Introduction to Calculus	3	(4) MATH 128 (Math 15)
Principles of Microeconomics	3	ECON 54
General Biology	8	BIOL15 & 17*
General Chemistry	8	CHEM 15 & 16
Organic Chemistry	8	CHEM 133/135 & 134/136
Physics	8	PHYS 1 & 2
Introduction to Statistics	3	STAT 101 or ECON 125
General Microbiology	3-4	MBIO 26 or ENV 141
General Communications	3	Comm 11 & 12
Electives**	18	
Total	68-69	

*Preferred

**Electives must be designed to satisfy the University Liberal Studies Program requirements. (See "Liberal Studies Program" for a listing of specific courses.) Cluster A—12 hr.; Cluster B—six hr. in addition to Economics 54; and a three-hour course focussing on foreign or minority culture, women, or issues of gender. The WVU requirement for a writing course should be taken during the pre-pharmacy period of study; if not, it will be necessary to take such within the professional curriculum.

Because limited openings are available in all of the school's professional degree programs, preference in admissions is given to qualified West Virginians, although outstanding nonresident applicants are considered. Careful consideration is given to those personal qualifications which bear upon the fitness of applicants for the study and practice of the profession of pharmacy.

Admissions are competitive and are based on the academic grade-point average for specific School of Pharmacy requirements, the cumulative academic grade-point average achieved in all prior college courses, results of the Pharmacy College Admissions Test (PCAT), a personal interview and recommendations describing academic performance. A required course in which a grade of D was received must be repeated with a grade of C or better before acceptance can be considered by the School of Pharmacy Committee on Admissions.

Applicants should write to the Office of Admissions and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815 for official application forms, which will be made available after January 1 of each year and which should be returned to that office by March 1 preceding the fall term (first semester) in which the student seeks enrollment. Formal applications received after the March 1 deadline will be considered only when vacancies exist. A \$10.00 application fee is required and must accompany the application.

Each applicant who is recommended for acceptance is expected to deposit \$100.00 before his/her name is entered upon the official list of those accepted by the School of Pharmacy. If the applicant enrolls, this sum is applied to the first-semester tuition. If the applicant fails to enroll, this deposit is forfeited.

With enrollment in the School of Pharmacy, all students must initiate compliance with the immunizations and diagnostic procedures required by the University of West Virginia Board of Trustees, West Virginia University, the Robert C. Byrd West Virginia University Health Sciences Center, and/or the School of Pharmacy.

Complete information may be obtained from the Dean of the School of Pharmacy, WVU Health Sciences Center, P.O. Box 9500, Morgantown, WV 26506-9500 or from the Office of Admissions and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815.

Pharmacy College Admission Test

Completion of the Pharmacy College Admission Test is a requirement for admission. It is recommended that the student take this test in the fall before making application for admission. Information concerning time and place of the test can be obtained from a pre-pharmacy advisor, the School of Pharmacy, or by writing: Pharmacy College Admission Test, The Psychological Corporation, 555 Academic Court, San Antonio, TX 78204.

Personal Interview

The Committee on Admissions may require a personal interview with an applicant as it deems appropriate. Interviews are held during the Spring semester at the WVU Robert C. Byrd Health Sciences Center and the Charleston Area Medical Center and are arranged, insofar as possible, to suit the convenience of the applicant. The general policy is that only applicants with

a cumulative and science grade-point average of 2.5 or above are called for an interview. Applicants with a cumulative or science grade-point average below 2.5 are generally not considered minimally qualified for admission.

Recommendations on Academic Performance

Three academic recommendations are required, although more may be submitted. At least two of these recommendations must be provided by course instructors in any two of the three pre-pharmacy science areas: biology, chemistry, and physics. The third recommendation may be provided by a course instructor of the student's choice.

Admission to Advanced Standing

If space is available, students from other accredited schools of pharmacy may be admitted, provided they meet the course requirements of the WVU School of Pharmacy, have at least a 2.5 grade-point average, and are eligible for continuation toward a degree in pharmacy at the school initially attended. D grades in professional courses can not be transferred.

Student Status and Advancement

A student's status is determined by the Committee on Academic Standards of the School of Pharmacy. All committee actions are subject to approval of the Dean. In the School of Pharmacy, all grades except W, WU, P, and X are used to determine the cumulative grade-point average. The advancement of students in the School of Pharmacy is based on satisfactory academic performance, as well as the completion of course requirements.

To be in good standing, a student must maintain at least a 2.0 cumulative average while in the professional program. An F grade or failure to attain a 2.0 average in any semester will result in placing a student on probation. To be removed from probation, a student shall: (a) remove all academic deficiencies; (b) attain not less than a 2.0 cumulative grade-point average; and (c) demonstrate significant improvement in academic performance, earning a C grade or better in all course work prescribed by the Committee on Academic Standards. Failure to be removed from probation in the subsequent semester may be deemed sufficient reason for suspension or the withdrawing of advancement. Furthermore, any student on probation at the end of the second professional year must petition the Committee on Academic Standards for advancement to the third professional year and shall not be eligible for summer clerkships. Any first-professional-year student deficient seven or more grade points at the end of the academic year, or any second professional year student deficient four or more grade points, shall fail promotion and shall repeat the year. Any student deficient 12 or more grade points, or who fails promotion a second time, shall be suspended or dismissed from the School of Pharmacy. An exceptionally poor performance during any semester may result in failure to be advanced or suspension.

Students on probation are not eligible to hold office in student organizations or to participate in activities which make demands on time necessary to maintain satisfactory academic performance. Students on probation are expected to be present for all of their classes and laboratories. Full-time students in the School of Pharmacy may not register for less than 12 hours nor more than 20 hours during any semester without the approval of the

Committee on Academic Standards. For any exception, a letter of petition, as approved by the student's academic advisor, must be submitted to the Committee on Academic Standards through the Office of Student Affairs.

Special Requirements

Fifteen hundred clock hours of internship experience are required by the Board of Pharmacy for licensure in West Virginia. Students are required to obtain an Intern Certificate from the West Virginia Board of Pharmacy. Any hours worked before becoming a registered intern will not apply toward meeting the Board requirements. Students must have a valid Intern Certificate throughout their externship semester of the B. S. program and their entire clerkship year of the Pharm.D. program. The certificate must also be maintained until completion of the entire internship. The Board of Pharmacy holds final authority over internship rules and regulations. Six hundred and forty hours of the total of fifteen hundred required by the Board of Pharmacy are obtained upon completion of the externship semester of the third professional year of the B.S. program and upon completion of the fourth professional year of the Pharm. D. program.

Students in the B.S. program will be assigned an externship semester during the first professional year. Placement and sequencing of externship sites will take place the semester prior to the externship semester. The B.S. externship semester is divided into four four-week blocks. Three of the four blocks must be performed in West Virginia Rural Health Education Partnerships (WVRHEP) sites. Opportunity will be provided for students to prioritize their site selection; however, the School of Pharmacy maintains ultimate selection authority. All required didactic course work must be completed prior to entering the externship semester. Students may incur some additional housing and/or travel costs during the externship semester.

Students in the Pharm. D. program will perform eleven four-week blocks of clerkships during the final year of the program. Three of the eleven blocks must be performed in WVRHEP sites. Site placement and sequencing will occur in the semester prior to the clerkship year. Students may incur additional housing and/or travel costs during the clerkship year. Opportunity will be provided for students to prioritize their site selection; however, ultimate authority for site selection will be maintained by the School of Pharmacy. All required didactic course work must be completed prior to beginning the clerkships.

Requirements for Degree

The degree of bachelor of science in pharmacy (B.S. Pharm.) or Doctor of Pharmacy (Pharm. D.) is conferred upon any student who complies with the general regulations of WVU concerning degrees, satisfies all entrance and School of Pharmacy requirements, and completes the appropriate curriculum of the School of Pharmacy.

To be eligible for graduation, a student must have an average of C (2.0) for all work in the professional curriculum.

Course Changes

A student who seeks credit for a course previously taken to replace a course prescribed in the student's curriculum must submit a written petition to the Committee on Academic Standards.

School of Pharmacy Curriculum Plan
Bachelor of Science in Pharmacy Curriculum
 (Last class graduates in spring, 2000)

First Professional Year

First Semester	Hrs.
BIOC 139 <i>General Biochemistry</i>	3
ANAT 101 <i>Human Anatomy</i>	3
PSIO 241 <i>Mechanical Body Functions</i>	4
PHAR 200 <i>Introduction to Pharmaceutical Systems</i>	4
PHAR 201 <i>Concepts in Pharmaceutics 1</i>	3
PHAR 227 <i>Pharmacist's Social Environment</i>	2
	19

Second Semester	Hrs.
MBIO 220 <i>Microbiology</i>	4
PHAR 202 <i>Concepts in Pharmaceutics 2</i>	4
PHAR 229 <i>Managerial Aspects of Pharmacy Practice</i>	3
PHAR 241 <i>Fundamentals of Pathophysiology</i>	4
PHAR 270 <i>Fundamentals of Medical Chemistry 1</i>	3
	18

Second Professional Year

First Semester	Hrs.
PCOL 243 <i>Pharmacology</i>	4
PHAR 203 <i>Concepts in Pharmaceutics 3</i>	4
PHAR 230 <i>Professional Aspects of Pharmacy Practice</i>	3
PHAR 245 <i>Pharmacotherapy 1</i>	3
PHAR 271 <i>Fundamentals of Medical Chemistry 2</i>	3
PHAR 265 <i>Chemical Abuse</i>	1
	18

Second Semester	Hrs.
PHAR 205 <i>Pharmaceutical Aspects of Pharmacy Practice</i>	4
PHAR 228 <i>Pharmacy Practice and Legal Environment</i>	3
PHAR 246 <i>Pharmacotherapy 2</i>	3
PHAR 255 <i>Introduction to Drug Literature</i>	2
PHAR 266 <i>Principles of Clinical Pharmacy Practice</i>	2
PHAR 212 <i>Non-Prescription Drugs</i>	3
	17

Third Professional Year

First Session (Summer)	Hrs.
PHAR 250 <i>Ambulatory Care Clerkship</i>	4
PHAR 251 <i>Medical Team Clerkship</i>	4
PHAR 252 <i>Institutional Care Clerkship</i>	4
PHAR 253 <i>Elective Clerkship</i>	4
	16

Second Session (First Sem.)	Hrs.
PHAR 250, 251, 252, and 253 (See First Session) or Electives or Free Session	16
	16

Third Session (Second Semester)	Hrs.
PHAR 250, 251, 252, and 253 Electives or Free Session	12
	12

Entry-Level Pharm. D. Professional Curriculum
(To be initiated fall semester, 1998)

First Year

Fall Semester	Hrs.
Anatomy 101	3
Physiology 241	4
Physical Pharmacy	3
Pharmacy As A Profession	2
Pharmaceutical Care Lab I	2
Elective *	2-3
	16-17

Spring Semester	Hrs.
Biochemistry 139	3
Pharmacy Law/Ethics	3
Pharmaceutics	3
Immun Biotech Antiinfectives	3
Chemical Properties of Drugs	1
Practicum	1
Pharmaceutical Care Lab II	2
	16

*Students must complete a minimum of 12 credit hours of electives in the first three years of the professional program. Of these 12, minimum of 6 must be professionally related and selected from an approved list.

Second Year

Fall Semester	Hrs.
Pathophys & Therapeutics I	4
Chemistry of Drug Action I	3
Principles of Pharmacology I	3
Patient Health Education	2
Pharmaceutical Care Lab III	2
Elective	2-3
	16-17

Spring Semester	Hrs.
Pathophys & Therapeutics II	4
Chemistry of Drug Action II	2
Principles of Pharmacology II	3
Pharmacy Management	2
Medical Literature Evaluation	2
Pharmaceutical Care Lab IV	1
Elective	2-3
	16-17

Third Year

Fall Semester

Hrs.

Pathophys & Therapeutics III	5
Biopharm & Pharmacokinetics	3
Non-Prescription Drugs	3
Pharmacy Systems	2
Pharmaceutical Care Lab V	1
Elective	2-3
	16-17

Spring Semester

Hrs.

Pathophys & Therapeutics IV	3
Clinical Pharmacokinetics	3
Disease Prevent Health Promo	2
Outcomes Assmt & Quality Imprv	2
Therapeutic Patient Monitoring	3
Pharmaceutical Care Lab VI	1
Elective	2-3
	16-17

Fourth Year

Experiential Components (Students Rotate Through)

Community and Institutional

Pharmacy Components *	3x4 weeks	=	12 weeks	12
Medicine	2x4 weeks	=	8 weeks	8
Ambulatory Care	2x4 weeks	=	8 weeks	8
Informational Sciences	1x4 weeks	=	4 weeks	4
Pediatric Medicine	1x4 weeks	=	4 weeks	4
Electives	2x4 weeks	=	8 weeks	8
Total Experiential **			44 weeks	44

*Students will choose which component will be 4 weeks and which component 8 weeks for a total of 12 weeks community and institutional.

**Year Four students will be required to attend both Summer I and II semesters.

The entry level Doctor of Pharmacy Program has been approved at all levels of administration. Individual courses have not been submitted to the University Senate for approval.

Prior to graduation each student enrolled in the School of Pharmacy professional program must complete a minimum of 12 credit hours of electives as part of the pharmacy curriculum. For the B.S. in Pharmacy program, electives are usually taken following completion of the first professional year; however, for the Pharm. D. program, electives must be completed during the first three years of the four-year professional program. The WVU requirement for a writing course is strongly encouraged to be completed during the pre-pharmacy period of study; if not, it will be necessary to take such a course within the professional curriculum.

For the B.S. program a minimum of 6 credit hours must be electives offered in the School of Pharmacy. The remaining credit hours may be approved electives offered in other colleges and departments at WVU and include all Honors courses offered at WVU. Elective course lists are posted in the School of Pharmacy and are available from the student's advisor. Under

special circumstances (e.g., new courses, preparation for special post-baccalaureate programs, etc.) and only with the advisor's permission, the student may take a course which does not appear on either list of approved electives. (A letter reflecting the advisor's permission must be placed in the student's file in the Office of Student Affairs). For the Pharm. D. program, at least six of the twelve required elective hours must be professionally related and chosen from a list of approved courses. Beyond the required 12 credit hours, the student may take any other electives. No course taken prior to admission into the School of Pharmacy may be used nor repeated to meet the elective requirements of the professional curriculum.

A student admitted into the School of Pharmacy B.S. in Pharmacy program with a previously earned baccalaureate degree may petition the Committee on Academic Standards to be relieved of a maximum of six credit hours of the approved non-pharmacy elective requirement. This petition is normally granted if the student is in good academic standing. The student petitions for this exemption during the preregistration period in the spring semester of the first year in pharmacy school with the exemption contingent upon the successful completion of both semesters of the first-year pharmacy curriculum. Once the exemption is granted, it shall not be revoked except for just cause as deemed necessary by the Dean and/or faculty. For the entry level Pharm. D. program, no reduction in elective requirements will be allowed for courses completed or degrees earned prior to enrollment in the program.

The University pass/fail policy will be followed. Only Pharmacy 289 (first offering up to three hours), approved electives in other colleges and departments at WVU, or additional free electives may be taken on a pass/fail basis. No more than three credit hours of PHAR 289 (*Pharmaceutical Investigations*) will be permitted to count toward fulfillment of the pharmacy elective requirements. A student with at least a 2.0 grade-point average may elect to take up to a maximum of four credit hours each semester on a pass/fail grading basis.

Post-Baccalaureate Doctor of Pharmacy

The two-year Pharm. D. program includes a didactic component designed to improve the student's basic skills and knowledge base. The first year consists of courses in pathophysiology, therapeutics, drug literature review and evaluation, pharmacokinetics, and physical assessment. The second year of the program is experiential and emphasizes the application of the knowledge gained during the previous year. Students will train at clinical clerkship sites in both Morgantown and Charleston, each being unique from the others. Each setting will enable students to enhance and refine their therapeutic skills, develop problem solving techniques, and learn to communicate and contribute as a member of a multidisciplinary health care team. Students are also required to undertake a research project. For the post-baccalaureate Doctor of Pharmacy program, the last graduating class will follow the fall semester, 2001. This program will have converted to the Entry Level Pharm. D. Program. For more specific information, please write Charles Ponte, Director, Doctor of Pharmacy Program, School of Pharmacy, WVU Health Sciences Center, P.O. Box 9520, Morgantown, WV 26506-9520.

Graduate Programs Pharmaceutical Sciences

The School of Pharmacy offers graduate programs in the pharmaceutical sciences aimed at educating competent researchers and teachers. Programs for the degree of master of science (M.S.) and doctor of philosophy (Ph.D.) provide flexible, research-oriented curricula designed to develop the interests, capabilities, and potential of the individual student.

Admission Requirements

Applicants for admission into the graduate program must satisfy the WVU general requirements for admission as graduate students. The applicant must possess a baccalaureate degree with a background in a suitable area of study, an overall grade-point average of at least 2.75, and the aptitude and interest for graduate work in the pharmaceutical sciences in order to be admitted with regular student status. Applicants not meeting criteria for admission with regular student status will be considered for admission under alternate admission classifications as explained in Part 2 of the *WVU Graduate Catalog*. In addition, Graduate Record Examination (GRE) scores in the verbal, quantitative, and analytical portions are required from all students except for applicants in the area of behavioral and administrative pharmacy, where test scores on the Graduate Management Admissions Test (GMAT) are acceptable. TOEFL, or similar scores, are required of international students.

Academic Standards

No credits are acceptable toward a graduate degree with a grade lower than a C. A graduate student must have a cumulative grade-point average of at least 3.0 for all graduate courses to qualify for the degrees.

Doctor of Philosophy (Ph.D.)

The School of Pharmacy offers programs of study leading to the doctor of philosophy (Ph.D.) degree in the pharmaceutical sciences. Specialty areas of study include medicinal chemistry, pharmaceuticals, biopharmaceutics/pharmacokinetics, and behavioral and administrative pharmacy.

Requirements for Ph.D. Degree

The student's first semester is usually occupied with course work while he or she is under the guidance of an interim faculty advisor or committee. During this time, each student will confer with faculty members in the department concerning the research project, and a major professor should be chosen by the end of the first semester of graduate study. The student's research committee should be chosen by the end of the first year of study (18-20 hours of graduate course work). The interest to pursue the M.S. en route to the Ph.D. degree should also be stated at this time. It is not necessary for all students to complete all requirements for the M.S. degree in order to qualify for admission into the Ph.D. program, although the student, with committee advice, may elect to complete the requirements for this degree in progress toward the Ph.D. Students bypassing the M.S. must meet all requirements for the M.S., except for preparing and defending a thesis.

Each student must submit a formal plan of study and research plan to the Health Sciences Center Graduate Council.

Progress will continue with guidance from the research committee, and by the end of the second year the student should have completed the language/research tool requirements.

To be admitted to candidacy for the Ph.D. degree, the student must satisfy the above requirements and pass oral and written qualifying examinations.

After admission to candidacy, a substantial part of the program is devoted to an original research project which culminates in a dissertation. To be recommended for the Ph.D., the dissertation must be satisfactorily completed and defended at an oral examination.

Master of Science (M.S.)

The same program requirements for the first year of graduate study are required of the M.S. degree student as those described for the Ph.D. student. The School of Pharmacy offers programs of graduate study leading to the degree of master of science (M.S.) in the pharmaceutical sciences. Students may specialize in pharmacy administration, pharmacology and toxicology, pharmaceutical chemistry, industrial pharmacy, medicinal chemistry, pharmaceuticals, biopharmaceuticals, and pharmacokinetics.

Requirements for M.S. Degree

To be eligible for the M.S. degree, the student must complete a minimum of 30 hours of graduate credit, of which no more than 6 hours may be for research and thesis. Upon completion of the course work and research requirements and after submission of the thesis, an oral examination will be administered by the appointed examination committee.

For more specific information, please contact the Assistant Dean for Research and Graduate Programs, School of Pharmacy, P.O. Box 9500, Morgantown, WV 26506-9500.

Courses

Plan for Numbering Courses

For convenience, each course of study is designated by the name of the department in which it is given and by the number of that course. The plan for numbering courses is as follows:

Courses 1-99: Courses intended primarily for freshman and sophomores.

Courses 100-199: Courses intended primarily for juniors and seniors.

Courses 200-299: Courses for advanced undergraduate students and selected graduate students. No more than 40 per cent of the credits counted for meeting requirements for a graduate degree can be at the 200 level.

Courses 300-399: Courses for graduate students, students in professional programs leading to a doctorate, and selected advanced undergraduates. Undergraduates in any class carrying a 300-level course number must have a 3.0 cumulative grade point average and written approval on special forms from the instructor and the advisor. Seniors within 12 semester hours of graduation may, with prior approval of their advisors, enroll in 300-level graduate courses for graduate credit.

In summary, 200-level courses are intended primarily to serve undergraduate students; 300-level courses are intended primarily to serve introductory graduate degrees' course needs.

Courses 391 *Advanced Topics* and 397 *Master's Degree Research or Thesis*: Courses are approved for University-wide use by any academic unit. These courses may be graded S or U.

Courses 400-499: Courses for graduate students only. All doctoral degree dissertation hours are awarded at the 400-level, specifically under course number 497. Courses numbered 497 may be graded S or U.

Courses 492-495: Courses are approved by the assistant vice president for curriculum and instruction. Approved requests are forwarded to the Office of Admissions and Records for entry into the WVU *Schedule of Courses*. Graduate degree credit-hour requirements must include at least 60 per cent at the 300 and 400 level.

Abbreviations Used in Course Listings

I: a course given in the first (fall) semester.

II: a course given in the second (spring) semester.

I, II: a course given each semester.

I and II: a course given throughout the year.

Yr: a course continued through two semesters.

S: a course given in the summer.

hr: credit hours per course.

lec: lecture period.

rec: recitation period.

lab: laboratory period.

Conc: concurrent registration required.

PR: prerequisite.

Coreq: corequisite.

consent: consent of instructor required.

CR: credit but no grade.

An asterisk (*) following credit hours listed as variable indicates that the course normally carries three credit hours. Exceptions are made only in emergencies and must be approved by the departmental chair and by the professor teaching the course.

Undergraduate Common Course Numbers and Descriptions

190. *Teaching Practicum*. I, II, S. 1-3 hr. PR: Consent. Teaching practice as a tutor or assistant.

191. *Special Topics*. I, II, S. 1-3 hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

194. *Professional Field Experience*. I, II, S. 1-18 hr. PR: Consent. Prearranged experimental learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors; involves temporary placement with public or private enterprises for professional competence development. (May be repeated up to a maximum of 18 hours.)

195. *Seminar*. I, II, S. 1-3 hr. PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

196. *Senior Thesis*. I, II, S. 1-3 hr. PR: Consent.

197. *Honors*. I, II, S. 1-3 hr. PR: Student in the Honors Program and consent by the Honors director. Independent reading, study, or research.

Graduate Level Common Course Numbers and Descriptions

(as approved by the Faculty Senate)

Course 391 *Advanced Topics*. Variable 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

Course 397 *Master's Degree Research or Thesis*. Variable 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

Any school, college, department, or division may elect to offer these courses for its students. With the approval of the assistant vice president for curriculum and instruction, these courses may be graded S or U.

Courses 491 and 497: Courses 491 *Advanced Study* and 497 *Research* are approved for University-wide use by any academic unit. Courses numbered 491 and 497 may be graded S or U.

Courses 492-495: Courses are approved by the assistant vice president for curriculum and instruction. Approved requests are forwarded to the Office of Admissions and Records for entry into the WVU *Schedule of Courses*.

490. *Teaching Practicum*. I and II. 1-3 hr. PR: Consent. Supervised practice in college teaching of _____ (Subject matter determined by department/division/college/school offering the course.)

Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It also provides a mechanism for students not on assistantships to gain teaching experience. Courses numbered 490 are graded S/U.

491. *Advanced Study*. I, II, S. 1-6 hr. PR: Consent. Investigation in advanced topics which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

Note: This course is intended to be helpful in pioneering new courses prior to requesting formal approval through the Senate Curriculum Committee and the full Faculty Senate (no later than the semester following the second offering of a particular special topics course) and to allow distinguished visitors whose stay will be a month or longer to instruct in their own fields of specialty.

492. *Directed Study*. I, II, S. 1-6 hr. Directed study, reading, and/or research.

493. *Special Topics*. I, II, S. 1-6 hr. A study of contemporary topics selected from recent developments in the field.

494. *Special Seminars*. I, II, S. 1-6 hr. Special seminars arranged for advanced graduate students.

495. *Independent Study*. I, II, S. 1-6 hr. Faculty-supervised study of topics not available through regular course offerings.

496. *Graduate Seminar*. 1 hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program.

Note: This course is intended to provide a mechanism for graduate students to give their "maiden speech" in their chosen discipline. Grading will be S/U.

497. *Research*. 1-15 hr.

498. *Thesis*. 2-4 hr. PR: Consent.

Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of students' reports, theses, or dissertation.

499. *Colloquium*. 1-6 hr. PR: Consent. For graduate students not seeking course work credit but who wish to meet residence requirements, use the University's facilities, and participate in its academic and cultural programs.

Note: Graduate students who are not actively involved in course work or research are entitled, through enrollment in his/her department's 499 Graduate Colloquium, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. Grading is S/U; colloquium credit may not be counted against credit requirements for masters' programs.

General Comment

Graduate Council policy requires that any student in a master's program has a minimum of 24 hours of "regular" course work: "....a minimum of 24 hours of course work other than thesis credit is standard and a minimum of 30 total hours is also standard."

Course Descriptions

School of Dentistry

Professional, Graduate, and Undergraduate Courses

Each course is designated by the name of the department teaching it, its number and title, the semester in which it is offered, and hours of credit. Generally, those courses given in the first year are numbered 300—324; second year, 325—349; third year, 350—374; and fourth year, 375—399. Elective opportunities are offered to students during the fourth year of study. (See courses 394 and 397.) Other University courses may be taken with the approval of the student's adviser and the Associate Dean for Academic Affairs. Courses offered by the School of Dentistry have either a prefix DENT for dentistry, ENDO for endodontics, ORTHO for orthodontics, or DTHY for dental hygiene. Courses included in the curriculum but offered by other colleges, schools, or departments may be located elsewhere in this catalog or in the WVU Graduate Catalog.

Dental Hygiene (DTHY)

1. *Orientation to Dental Hygiene*. I. 2 hr. PR: Enrollment in dental hygiene. Historical development of dental hygiene with emphasis on the philosophy, responsibilities, and current role of the dental hygienist as a member of the dental health team.

66. *Technical Expression and Dental Literature*. I. 1 hr. PR: Enrollment in dental hygiene. Preparation and uses of professional communication.

85. *Oral Anatomy*. II. 3 hr. PR: Enrollment in dental hygiene. Human teeth and the anatomy of the head and neck with emphasis on structures in or related to the oral cavity.

85. *Oral Histology*. II. 3 hr. PR: Enrollment in dental hygiene. Histological structures of the teeth and tissues of the oral cavity and the morphological development of these structures.

90. *Oral Histology*. II. 3 hr. PR: Consent of instructor or chairperson. Histological structure and embryological development of the teeth, tissues, and organs of the oral cavity.

105. *The Theory and Practice of Prevention*. I. 2 hr. PR: Enrollment in dental hygiene. Philosophy and techniques of preventive dentistry.

120. *Dental Nursing Technics*. II. 1 hr. PR: Enrollment in dental hygiene. Emergency first aid and principles of nursing applicable to the dental office

125. *Dental Hygiene Technics*. II. 4 hr. PR: Enrollment in dental hygiene. Fundamental principles and technics of dental hygiene are presented through lectures, laboratory, and clinical participation.

150. *Dental Health Education*. II. 3 hr. PR: Enrollment in dental hygiene. Lectures, demonstrations, and field experiences on the methods, materials, and resources used in teaching dental health to various population groups.

152. *Dental Radiology*. I. 2 hr. PR: Enrollment in dental hygiene. Basic principles and procedures in oral radiology technics and interpretation.

160. *Dental Materials*. I. 3 hr. PR: Enrollment in dental hygiene. Lecture and laboratory covering the science and manipulation of dental materials. (2 hr. lec., 4 hr. lab.)

161. *Expanded Functions*. II. 2 hr. PR: DTHY 160. Lecture and laboratory covering specialty topics in dentistry for expanded functions, four handed dental assisting, and the placing and carving of amalgam and resin restorations in dentiform teeth. (1 hr. lec., 4 hr. lab.)

162. *Dental Hygiene Clinical Methods*. I. 2 hr. PR: DTHY 125. Principles of oral prophylaxis, instruction in the care of special patients, use of diagnostic aids, and nutritional counseling. (2 hr. lec.)

163. *Clinical Dental Hygiene 1*. I. 2 hr. PR: DTHY 125. Clinical application of dental hygiene principles and techniques. (2 hr. lab.)

164. *Clinical Dental Hygiene 2*. II. 2 hr. PR: DTHY 162, 163. Clinical application of dental hygiene principles and techniques. (8 hr. lab.)

168. *Periodontics*. I. 1 hr. PR: Enrollment in dental hygiene. Tissues of the periodontium, histopathology of periodontal disease with emphasis on etiology, examinations, diagnosis, treatment, and prevention within the scope of dental hygiene.

169. *Periodontics*. II. 2 hr. PR: DTHY 168. A sequential course to DTHY 168.

172. *Public Health*. I. 2 hr. PR: Enrollment in dental hygiene. Theory and practice of preventive dentistry and community health.

174. *Dental Hygiene Teaching Methods*. II. 2 hr. PR: Enrollment in dental hygiene. Concepts and principles of administration, curriculum, and clinical teaching unique to dental auxiliary education. Emphasis on overall role of the dental hygiene educator.

202. *Dental Hygiene Practice*. I. 2 hr. PR: Senior enrollment in dental hygiene. Scope of practice for the dental hygienist including ethical and legal considerations. Public and professional relations as well as practice management are discussed.

204. *Advanced Dental Hygiene Methods*. I. 1 hr. PR: Senior enrollment in dental hygiene. Principles of advanced clinical dental hygiene and practice in non-traditional settings. (1 hr. lec.)

205. *Advanced Clinical Dental Hygiene 1*. I. 5 hr. PR: Senior enrollment in dental hygiene. Clinical experience in traditional and expanded duties; pre- and post-operative care of surgical patients, and radiology. (20 hr. clinic.)

206. *Advanced Clinical Dental Hygiene 2*. II. 3-4 hr. PR: Senior enrollment in dental hygiene. Continuation of clinical practice experience in dental hygiene procedures. (12-16 hr. clinic.)

207. *Advanced Dental Hygiene Methods*. II. 1 Hr. PR: Senior enrollment in dental hygiene. Principles of advanced clinical dental hygiene and practice in non-traditional settings.

220. *Special Topics in Dental Hygiene*. I, II. 1-2 hr. PR: Senior enrollment in dental hygiene. Special topics relevant to dental hygiene. A variety of sections offer elective opportunities to dental hygiene majors.

380. *Dental Hygiene Seminar and Practice 1*. I. 3 hr. PR: Graduate standing and consent. Examination of the critical environmental issues affecting the future of health care; particular impact on oral health care trends will form major focus. Dental hygiene clinical practice is also included.

381. *Dental Hygiene Seminar and Practice 2*. II. 3 hr. PR: DTHY 380. Expanded services for the dental hygienist with emphasis on restorative and periodontal functions.

385. *Research Methods for the Dental Hygienist*. II. 3 hr. PR: ED P 311. Methods and techniques of research in dental hygiene. Major emphasis on planning and evaluating health programs, conducting oral health surveys, designing experiments and critically analyzing research results.

391. *Advanced Topics*. 1, 11, S. 1-6 hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

397. *Research*. I, II, S. 3-6 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

Dentistry (DENT)

Each course is designated by the name of the department teaching it, its number and title, the semester in which it is offered, and hours of credit. Generally, those courses given in the first year are numbered 300—324; second year, 325—349; third year, 350—374; and fourth year, 375—399. Elective opportunities are offered to students during the fourth year of study. (See course 391.) Other University courses may be taken with the approval of the student's adviser and the Associate Dean for Academic Affairs. Courses offered by the School of Dentistry have either a prefix DENT for dentistry, ENDO for endodontics, ORTHO for orthodontics, or DTHY for dental hygiene. Courses included in the curricula but offered by other colleges, schools, or departments may be located elsewhere in this catalog or in the WVU Graduate or Undergraduate Catalogs.

300. *Anesthesiology*. II and S. 1 hr. Lectures on local anesthesia, including types, modes of action, indications, and contraindications for use. Premedication, toxic effects, and technics of administration are discussed.

303. *Oral Diagnostic & Roentgenology*. II. 2 hr. Lectures and laboratory exercises introduce and stress fundamental principles of oral diagnosis including patient health history and clinical examination methods. Intraoral radiography. General approach to treatment planning for comprehensive health care.

304. *Operative Dentistry*. II. 4 hr. Preclinical course in principles of cavity preparation, manipulation of plastic restorative materials, and related instrumentation. Characteristics and treatment of caries emphasized.

310. *Dental Anatomy and Occlusion*. Yr. 6 hr. Anatomy of individual teeth, both permanent and primary, in regard to form and function and their static and dynamic occlusal relationships.

311. *Periodontics*. S. 1 hr. Introduction to periodontal diseases, their diagnosis and treatment. Laboratory instruction is included.

312. *Dental Materials*. I. 3 hr. Composition, physical, chemical, mechanical, and manipulative properties, and technical uses of dental restorative materials as related to dentistry.

313. *Removable Prosthodontics*. I. 3 hr. Lectures and laboratory practice in biomechanical requirements of the edentulous patient.

314. *Fixed Prosthodontics*. S. 1 hr. Preclinical lectures and laboratory exercises in which first-year students are introduced to the technics of preparing and restoring teeth with crown restorations.

315. *Periodontics*. II. 2 hr. Study of professional communication and introduction to the theory and practice of preventive dentistry.
316. *Removable Prosthodontics*. S. 1 hr. Lectures and laboratory practice in maxillomandibular relationships and occlusion.
317. *Removable Prosthodontics*. II. 1 hr. PR: Consent. A lecture course providing an introduction to removable partial denture prosthetics.
319. *Pedodontics*. II. 1 hr. PR: Consent. Normal growth and development presented from physical, intellectual, psychological, and oral perspectives. Behavior of children in dental environment reviewed and strategies for management examined.
320. *Community Dentistry*. I. 1 hr. Fundamentals of statistical analysis and the scientific method necessary to the understanding of dental research.
321. *Endodontics*. S. 2 hr. Preclinical lectures and laboratory exercises on basic technical and biological requisites in the treatment of diseases of the dental pulp and the periapical tissues.
322. *Operative Dentistry*. S. 2 hr. Preclinical course to include a variety of cavity forms and their restoration with compacted golds. Certain fundamentals of pedodontics introduced.
323. *Clinic Orientation*. Yr. 1 hr. Series of specially arranged lectures, demonstrations, and clinical exercises to orient student to clinical procedures in the clinical disciplines.
325. *Practice Management*. II. 1 hr. A lecture course designed to prepare dental students in the concepts of four-handed dentistry.
327. *Oral Radiology*. I. 1 hr. The physical and biological phenomena associated with x-radiation. Intraoral and extraoral techniques presented and instruction in interpretation of roentgenograms, with special emphasis relative to oral diagnosis.
329. *Operative Dentistry*. I. 2 hr. Lectures relate to standard clinical procedures and to laboratory instruction in direct and indirect cast gold restorations.
330. *Community Dentistry*. II. 1 hr. Lectures provide the student with a basic knowledge of the principles of dental public health practice. Emphasis on dental epidemiology and preventive dentistry at the community level.
331. *Occlusion*. S. 2 hr. PR: Consent. Didactic and clinic/laboratory instruction in the basic techniques and procedures associated with the treatment of conditions related to faulty occlusion.
332. *Periodontics*. II. 1 hr. Lectures in the advanced theory and practice of preventive dentistry with emphasis on nutrition.
333. *Physical Diagnosis*. II. 1 hr. Lectures and demonstrations procedures involved in performing a physical examination and in understanding the hospital medical chart from the standpoint of history, physical examination, laboratory, and x-ray examination data.
334. *Removable Prosthodontics*. Yr. 3 hr. Didactic and laboratory practice for treatment of the partially edentulous patients, and introduction to clinical complete denture prosthodontics.

335. *Pediatric Dentistry*. I and II. 2 hr. PR: Consent. Didactic instruction foundational to the dental care to children presented in the following modules of instruction: oral diagnosis/treatment planning/case presentation, prevention, restorative dentistry, pulpal therapy, management of the developing occlusion and trauma to the dentition and oral structures.

336. *Fixed Prosthodontics*. Yr. 6 hr. PR: Consent. Lectures and laboratory exercises involving principles and technics of crown and bridge prosthodontics. Topics include types of dental bridges, their indications, and contraindications.

337. *Oral Diagnosis*. II. 1 hr. Didactic instruction with further application of diagnosis procedures presented in DENT 303, extended to include special examination procedures and technics applicable to evaluating clinical problems.

339. *Oral Surgery*. II. 1 hr. Didactic instruction in basic surgical principles as applied to the extraction of teeth and dento-alveolar surgery.

340. *Periodontics*. I. 1 hr. Intermediate didactic instruction in periodontal therapy including basic surgery and post-operative care.

341. *Removable Prosthodontics*. S. 2 hr. Clinical demonstrations correlating the didactic and laboratory practices with the actual treatment of a removable prosthodontic patient.

342. *Periodontics*. I. 1 hr. PR: Consent. Clinical introduction to the practice of preventive dentistry.

344. *Diagnosis and Treatment Planning*. II. 1 hr. Analysis of orthodontic diagnostic records, diagnostic skills for various malocclusions, and formulation of a treatment plan to orthodontic cases.

345. *Principles of Orthodontics*. II. 1 hr. Facial growth and development, the development of dental occlusion, and etiology and classification of malocclusions.

346. *Orthodontic Technics*. S. 1 hr. Technical instruction in taking diagnostic records and constructing basic orthodontic appliances.

347. *Management of Medical/Dental Emergencies*. II. 1 hr. Assessment and treatment of the medical risk patient as related to the practice of dentistry. CPR instruction included.

348. *Operative Dentistry*. S. 1 hr. Cavity medications, biological reactions to restorative materials and techniques, bur technology, and clinical variations of cavity form and treatment. Treatment planning procedure is reviewed and examined.

349. *Hospital Dentistry*. S. 1 hr. Hospital protocol and hospital dentistry as related to various dental disciplines. Students will be assigned a one-week hospital rotation where they are involved in care of the hospitalized dental patient.

350. *Removable Prosthodontics*. Yr. 2 hr. Lectures concerned with clinical practice of complete and partial removable prostheses.

351. *Occlusion*. II. 1 hr. PR: Consent. Advanced study of the science of occlusion with particular attention to its impact on the clinical diagnosis and treatment of occlusal disorders.

352. *Community Dentistry*. Yr. 2 hr. Seminars, proseminars, and field experience in selected topics of professional communication, health education, and the sociology and psychology of community health.
354. *Introduction to Dental Implantology*. 1 hr. PR: Consent. Biological and scientific bases for implant dentistry; diagnosis, treatment planning, selection, placement, restoration, and maintenance of dental implants.
356. *Removable Prosthodontics*. II. 1 hr. Lectures in the theory and practice of maxillofacial prosthodontics and implant dentistry.
357. *Fixed Prosthodontics*. Yr. 2 hr. PR: Consent. Lectures concerned with clinical practice; diagnosis, treatment planning, treatment procedures, ceramics, esthetics, and occlusion.
358. *Operative Dentistry*. S. 2 hr. More complex and advanced techniques for clinical practice with emphasis on new developments throughout the scope of operative dentistry.
359. *Oral Surgery*. I and II. 2 hr. PR: Consent. Didactic instruction in patient evaluation, complicated exodontia, preprosthetic surgery, diagnosis, surgical and adjunctive treatment of disease, injuries, and defects of human jaws and associated structures.
361. *Pediatric Dentistry*. I. 1 hr. PR: Consent. Continued didactic instruction in dentistry for the child patient with the following learning packages programmed: abnormal dental development, oral habits, and adolescent dentistry.
362. *Endodontics*. I. 1 hr. Lectures on rationale, diagnosis, prevention, and nonsurgical and surgical treatment of diseases of the dental pulp and their sequelae.
363. *Periodontics*. Yr. 2 hr. Advanced didactic instruction in periodontal therapy including special surgical procedures.
364. *Pain and Anxiety Control*. I. 1 hr. PR: Consent. Instruction in the psychology, physiology, and clinical techniques of controlling pain and anxiety in the dental patient.
365. *Orthodontics*. II. 1 hr. Introduction to clinical orthodontics; lectures on case analysis, treatment planning, and clinical procedures involved in interceptive, preventive, and adjunctive treatment of malocclusions.
366. *Developmentally/Medically Compromised Child*. I, II. 2 hr. PR: Consent. Didactic instruction in dentistry for the developmentally disabled and/or medically compromised child.
369. *Practice Management II (Ethics and Law in Dentistry)*. 2 hr. PR: Junior standing in dentistry. Core knowledge of the ethical and legal issues in dentistry; ethical and legal decision making process.
370. *Community Dentistry*. S. 1 hr. PR: Consent. Clinical, social, and community health considerations in the oral health care of geriatric patients.
371. *Practice Management*. I. 2 hr. PR: DENT 325. A lecture series on the fundamentals of practice management, including the organization and development of the practice, personnel and financial management, and the introduction to TEAM dentistry.

372. *Practice Management*. II. 1 hr. (Ethics.) Lectures and discussion on the principles of ethics applied to dental practice.
373. *Practice Management*. S. 1 hr. (Jurisprudence.) Lectures on the fundamental legal rights, obligations, and responsibilities of the dentist.
374. *Principles of Medicine*. I. 2 hr. General diseases about which the dental student should have intelligent working knowledge. Students are assigned to specific hospitalized patients to review their findings with the class.
375. *Practice Management*. Yr. and S. 1—3 hr. PR: Consent. Clinical practice using auxiliaries, including those trained in expanded functions.
376. *Removable Prosthodontics*. Yr. and S. 2—6 hr. Continued application of the theory and practice of removable prosthodontics.
377. *Periodontics*. Yr. and S. 1—4 hr. Clinical experience in the diagnosis and treatment of periodontal diseases.
378. *Practice Management-Law*. 1 hr. S. Select legal concepts and their relation to the practice of dentistry.
379. *Practice Management-Ethics*. 1 hr. S. Core knowledge of ethical issues in dentistry; the process of ethical decision making.
380. *Endodontics*. Yr. and S. 1—4 hr. Clinical endodontic instruction in order to develop the skills and judgment necessary to treat diseases of the dental pulp and their sequelae.
383. *Operative Dentistry*. Yr. and S. 2—8 hr. Instruction in the clinic setting includes comprehensive diagnosis and treatment planning, computer assisted records, plaque control, caries control, and single tooth restorations. Sufficient variety and depth of experience occurs to obtain competence for independent practice of operative dentistry.
384. *Oral Surgery*. Yr. and S. 1—3 hr. PR: Consent. Clinical instruction in outpatient and inpatient oral surgery necessary to provide comprehensive care for the dental patient.
385. *Orthodontics*. Yr. and S. 1—3 hr. Clinical management of selected malocclusion problems.
386. *Pediatric Dentistry*. I, II, S. 1—5 hr. PR: Consent. Instruction in the clinical setting with the goal of developing the psychomotor skills and judgment necessary to provide comprehensive care for the child patient.
387. *Clinical Oral Diagnosis*. Yr. and S. 1—3 hr. PR: Consent. Clinical application of principles presented in DENT 303 and 337, providing opportunities for observation and analysis of clinical problems.
389. *Fixed Prosthodontics*. Yr. and S. 1—6 hr. PR: Consent. Clinical application of the theory and practice of crown and bridge dentistry.

390. *Clinical Endodontics*. I, II, S. 1-5 hr. (May be repeated for credit.) PR: Graduate of an accredited dental school and admission to the Advanced Education Program in Endodontics or consent. Clinical endodontic practice in the areas of: ordinary endodontic cases, complex endodontic cases, hemisection, root amputation, replantation, transplantation, endodontic implantation, vital pulp therapy, apexification, and bleaching.

391. *Endodontic Theory*. I, II, S. 2 hr. PR: Consent. Provides seminar discussions in the topics of: basic endodontic techniques, advanced endodontic techniques, endodontic literature review, case presentation, and advanced endodontic theory.

391. *Advanced Topics*. (Fourth Year.) I and II. 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

394. *Community Dentistry*. I, II. 1—15 hr. Field experience in various aspects of community health.

396. *Clinical Oral Radiology*. Yr. and S. 1—3 hr. Clinical application of principles presented in DENT 303 and 327 with additional instruction in techniques and interpretation of radiographs with special emphasis to role played in oral diagnosis.

397. *Master's Degree Research or Thesis*. I, II, S. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

400. *Advanced Oral Surgery*. I, II, S. 1-12 hr. PR: Consent. Advanced study of therapeutics, hospital protocol, and surgical aspects of oral surgery involving lectures, seminars, demonstrations, and clinical applications.

490. *Teaching Practicum*. I, II. 1-3 hr. PR: Consent. Supervised practice in college teaching of dentistry.

497. *Research*. I, II, S. 1-15 hr.

Endodontics (ENDO)

390. *Clinical Endodontics*. I, II, S. 1-5 hr. (May be repeated for credit.) PR: Graduate of an accredited dental school and admission to the Advanced Education Program in Endodontics or consent. Clinical endodontic practice in the areas of: ordinary endodontic cases, complex endodontic cases, hemisection, root amputation, replantation, transplantation, endodontic implantation, vital pulp therapy, apexification, and bleaching.

391. *Endodontic Theory*. I, II, S. 2 hr. PR: Consent. Provides seminar discussions in the topics of: basic endodontic techniques, advanced endodontic techniques, endodontic literature review, case presentation, and advanced endodontic theory.

391. B. *Advanced Topics*. (Fourth Year.) I and II. 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

397. *Master's Degree Research or Thesis*. I, II, S. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

490. *Teaching Practicum*. I, II. 1-3 hr. PR: Consent. Supervised practice in college teaching of dentistry.

Orthodontics (ORTH)

391. *Advanced Topics*. (Fourth Year.) I and II. 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

397. *Master's Degree Research or Thesis*. I, II, S. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project..

416. *Biomechanics*. I, II, S. 2 hr. PR: Consent. Design and function of the teeth and their surrounding structures, and response of these tissues to orthodontic procedures.

418. *Orthodontic Materials*. I, II, S. 1 hr. PR: Consent. Physical properties of materials used in orthodontic appliances.

419. *Orthodontic Diagnosis*. I, II, S. 1-3 hr. PR: Consent. Seminar-type class on technique of patient examination, acquiring diagnostic records, and analyzing and correlating this information to the treatment of clinical problems.

420. *Cephalometrics*. S. 1-3 hr. PR: Consent. Use of radiographic cephalometry in studying growth of the human face, analysis of dentofacial malformations, and evaluation of orthodontic treatment.

421. *Orthodontic Mechanics*. I, II, S. 1-4 hr. PR: DENT 416, 417. Seminar and laboratory course on basic orthodontic mechanical properties.

423. *Growth and Development*. II. 1-5 hr. PR: Consent. Seminar-type course on normal and abnormal growth of the human head and its application to orthodontics.

425. *Orthodontic Seminar*. I, II, S. 1-8 hr. PR: Consent. Discussions involving all branches of dental science, with special emphasis on the orthodontic interest. Assigned topics and articles in the literature discussed.

426. *Orthodontic Clinic*. I, II, S. 1-12 hr. PR: DENT 416, 417. Clinical treatment of selected patients.

490. *Teaching Practicum*. I, II. 1-3 hr. PR: Consent. Supervised practice in college teaching of dentistry.

497. *Research*. I, II, S. 1-15 hr.

School of Medicine

Professional, Graduate, and Undergraduate courses

Anatomy (ANAT)

101. *Principles of Human Anatomy*. 4 hr. PR: BIOL 2 or equiv.; consent of instructor or chairperson. Lectures and demonstrations on the gross and microscopic anatomy of the human body including development. (Section 01 for pharmacy students; 02 for nursing and dental hygiene students.)

102. *Gross Anatomy*. II. 3 hr. PR: ANAT 101 and/or consent of instructor or chairperson. Functional gross anatomy of the back, extremities, head, and neck. (For physical therapy students.)

303. *Conceptual & Applied Gross Anatomy*. I. 10 hr. PR: Medical student standing or consent of chairperson. Gross anatomical study of the human body emphasizing conceptual, developmental and clinically-related topics.

305. *Microanatomy*. (For medical students and a limited number of regular full-time graduate students in the medical basic sciences.) II. 5 hr. PR: Medical student standing or consent of chairperson. Cells, tissues, and organs.

308. *Neuroanatomy*. (For students in physical therapy and a limited number of regular full-time graduate students in the medical basic sciences, and students in other health sciences.) II. 2 hr. PR: Consent of instructor or chairperson. Gross and microscopic structure of the central nervous system.

309. *Microanatomy and Organology*. (For dental students and a limited number of regular full-time graduate students in the basic sciences.) I. 5 hr. PR: Dental student standing or consent of chairperson. Cells, tissues, and organs.

312. *Special Topics in Anatomy*. I, II. 2-4 hr. per sem. PR: Consent of chairperson or instructor. Different topics of current interest in anatomy that are not included in the regular graduate courses.

314. *Applied Anatomy*. I, II. 2-6 hr. per sem. PR: Consent of instructor or chairperson. Detailed study of anatomy adapted to the needs of the individual student.

316. *Craniofacial Growth and Maturation*. I. 1 hr. PR: Consent of instructor. The current concepts of craniofacial growth and maturation are presented and integrated for application to clinical problems.

318. *Oral Histology and Embryology*. (For dental students and a limited number of regular full-time graduate students in the medical basic sciences.) II. 2 hr. PR: Dental student standing or consent of instructor or chairperson. Structure, function, and development of oral tissues.

319. *Advanced Head and Neck Anatomy*. 1 hr. PR: Dental, medical, or graduate student in basic sciences, or consent. Head and neck craniofacial anatomy as it applies to specialties in dental or medical practice.

320. *Electron Microscopy*. II. 2-4 hr. PR: Consent. (For graduate students, upperclass students in the sciences, medical students.) Interdisciplinary. Introduction to cell fine structure and function. Preparation of biological specimens for electron microscopy.

324. *Human Gross Anatomy*. (For dental students and a limited number of regular, full-time graduate students in medical basic sciences.) 7 hr. PR: Dental student standing or consent of chairperson. Human anatomy including cadaver dissection for dental students. 4 hr. lec., 3 hr. lab.

401. *Advanced Gross Anatomy*. I, II. 2–6 hr. per sem. PR: ANAT 303 or 324 and consent of instructor or chairperson. Morphological and functional analysis of a selected region, with dissection.

402. *Advanced Developmental Anatomy*. II. 2–4 hr. per sem. PR: ANAT 303 or 324 and consent of instructor or chairperson. Detailed developmental anatomy of the fetal period and infancy. With dissections and analysis of variations and malformations.

403. *Seminar*. I, II. 1–6 hr. (1 hr. per sem.) (Course may be repeated.) PR: Consent of Graduate Committee. Special topics of current or historical interest.

406. *Advanced Neuroanatomy*. I. 2–4 hr. per sem. (Course may be repeated.) PR: CC MD 375 and consent of instructor or chairperson. Detailed study of selected areas of the nervous system.

408. *Histochemistry*. II. (Odd numbered years.) 3 hr. PR: ANAT 305 or 309, biochemistry, and consent of instructor or chairperson. Histochemical theory and techniques.

451. *Advanced Microanatomy and Organology*. I, II, or S. 2–4 hr. PR: ANAT 305 or 309, or BIOL 263 and consent of instructor or chairperson. An extension of the major topics included in ANAT 305 or 309. Special emphasis on recent contributions.

490. *Teaching Practicum I and II*. 1–3 hrs. Consent of chairperson. Supervised practice in college teaching of anatomy. Graded as S or U.

491. *Advanced Anatomy*. I, II. 1–6 hr. PR: Consent of chairperson.

497. *Research*. I, II, S. 1–15 hr. PR: Consent of Graduate Committee. (May be repeated as needed with consent of Graduate Studies Committee.)

Anesthesiology (ANES)

301. *Basic Sciences Applied to Anesthesia*—Medicine I and II. 1-6 hr. per year. PR: Consent. (Not offered during summer.) Examination and evaluation of data, decision-making, discussion of special procedures. (Max. enrollment: 10.)

331. *Clinical Clerkship in Anesthesiology/Acute Medicine*. (Third Year.) CR.

A. Lectures to Third-Year Students on Topics Related to Anesthesiology.

B. Clinical Clerkship in Acute Medicine. Preanesthetic evaluation, local and systemic anesthesia, airway management, cardiopulmonary resuscitation, respiratory care, clinical pharmacology, toxicology, fluid and blood therapy, and pain management. Seminars and practical exercises in emergency cardiac life support clinical experience in ICU or OR. (Duration: 2 weeks.)

399. *Selective Experiences in Anesthesiology*. (Fourth Year.) CR. (See Conjoined Courses.)

Behavioral Medicine & Psychiatry (BMP)

311. *Introductory Psychiatry*. (First Year.) II. 2 hr. An examination of normal psychological development; consideration of the doctor-patient relationship and physician impairment. The format consists of problem based learning in small groups.

321. *Introductory Psychiatry*. (Second Year.) I. 2 hr. Continuation of BMP 311 with an in-depth look at basic science and social science parameters in psychiatry. Major clinical syndromes along with biological and environmental concomitants are presented. The format consists of problem based learning in small groups and large groups.

341. *Clinical Clerkship in Psychiatry*. (Third Year.) CR. Required of third-year medical students. Full-time assignment to the inpatient service in psychiatry, and participation and treatment of psychiatric disorders. Emergency Room responsibility, consult and liaison service. Some students will be able to do a rural rotation.

399. *Selected Experiences in Behavioral Medicine & Psychiatry*. (Fourth Year.) (See Conjoined Courses.)

Biochemistry (BIOC)

139. *Introduction to Biochemistry*. I. 4-5 hr. PR: General chemistry. (For medical technology and pharmacy students; others by consent.) Lecture and conference, 4 hr.; Laboratory/demonstration, 1 hr.

192. *Selected Topics in Biochemical Research*. I, II, S. 1-6 hr. (May be repeated for a maximum of 12 hr.) PR: Consent.

231. *General Biochemistry*. I. 7 hr. PR: General chemistry, organic chemistry. (For medical students; others by consent.) Consists of seven main lectures, and one problem session per week.

305. *General Biochemistry*. II. 4 hr. PR: Inorganic chemistry, organic chemistry, and consent. (For dental and graduate students.) Lecture, conference, and demonstration.

399. *Special Topics*.

A. I, II. 1-2 hr. PR: Consent. Journal Club, Teaching and Laboratory Rotations.

B. I (4 hr.), II (4 hr.). PR: General chemistry, organic chemistry. For graduate students in basic sciences programs.

490. *Teaching Practicum I and II*. 1-3 hr. Consent of chairperson. Supervised practice in college teaching of biochemistry. Graded as S or U.

491. *Advanced Study*. I, II. 1-6 hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

496. *Graduate Seminar*. I, II. 1 hr. PR: Consent. Presentation and discussion of special topics.

497. *Research*. I, II, S. 1-15 hr. PR: Consent.

Community Health Promotion (CHPR)

50. *History and Philosophy of Health Education*. 3 hr. Provides the student with an historical perspective of health education's development, its present status, and its current philosophical foundations.

70. *Health of the Individual*. 3 hr. Examines personal health-related problems in terms of information, services, and action, as they relate to attainment and maintenance of individual health.

71. *Health in the Community*. 3 hr. Develops an understanding of the organization, structure, and function of official, voluntary, and professional community health components in terms of their protecting and maintaining the health of the community.

72. *First Aid and Emergency Care*. I, II, S. 3 hr. Emergency aid for the sick and injured. Emergency services aimed at reducing the potential of permanent disability or threats to life, as well as pain, damage, or suffering of less serious nature.

101. *Elementary School Health Program*. 2 hr. PR: ED P 103 or 105 and junior or senior standing. The organization, educational aspects, and personnel relationships involved in school health services, healthful school living, and health education.

102. *Secondary School Health Program*. 2 hr. PR: ED P 103 or 105 and junior or senior standing. The organization, educational aspects, and personnel relationships involved in school health services, healthful school living, and health education.

104. *Organization and Administration of the School Health Program*. 3 hr. PR: CHPR 71. The underlying philosophy for the organization, structure, administrative policies and procedures, and legal aspects of the school health program.

191. *Special Topics*. I, II, S. 1-3 hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

220. *Drug and Alcohol Abuse Prevention*. 3 hr. Experiences designed to prevent the development of abuse drug-taking relationships by focusing on psychological variables such as self-esteem, coping skills, and development of support networks.

290. *Women and Health*. 3 hr. Examination of theories, myths, and practices surrounding women's physical and mental health from both historical and present-day perspectives. Exploration of specific health issues and controversies and the rise of the women's health movement.

301. *Advanced School Health*. 3 hr. PR: Graduate standing and consent. Analysis of problems in school health services, healthful school living, nature of health education, and scope of health instruction which confronts teachers and administrators.

307. *Community Health: Human Sexuality*. 3 hr. PR: Consent. Analysis of sex-related issues including parenting, sex education, sexual sanctions, pornography, sexual dysfunction, and sexual variance. Designed for teachers, health professionals, and interested lay people.

308. *Community Health: Death Education*. 3 hr. PR: Consent. Surveys death/dying from humanistic viewpoint. Examines philosophical, psychological, legal, and sociological aspects of death, grief, and mourning. Appropriate for teachers, health professionals, and others desiring understanding of death as a part of living.

309. *Community Health: Drug Education*. 3 hr. PR: Consent. Designed to help students learn appropriate components of a drug education program, gain an understanding of drug taking in this society, and acquire insights into dependent behaviors.

310. *Introduction to Health Promotion*. I. 3 hr. Historical foundations of professional health education; required skills and competencies; settings for health education.

311. *Community Health Promotion*. I. 3 hr. Various aspects of community health promotion; theories of community health program models; educational, social, and environmental interventions; demographical and epidemiological analyses.
312. *Analysis of Health Behavior*. I. 3 hr. The role of individual behavior in attaining health; integration of the concepts of health education and behavioral science to facilitate changes in health behavior.
314. *Injury Prevention and Control*. II. 3 hr. Injury as a public health concern; strategies and programs for injury prevention; morbidity and mortality; behavioral objectives for *Health People 2000*.
332. *Safety Education Principles and Content*. 3 hr. Offered spring semester in even years. Study and analysis of content areas usually recommended for instructional programs within the field of safety with emphasis on structured learning experiences. (3 hr. lec.)
333. *Foundations of Wellness*. II. 3 hr. Issues of personal life-style management; emphasis on concepts, behaviors, theories, strategies, and methods.
334. *Health Promotion Research and Statistics*. II. 3 hr. PR: CHPR 310, 311, 312, or consent. Measurement and evaluation of strategies, methods, and techniques for health promotion; issues of program evaluation; health promotion research.
335. *Management for Health Promotions Professions*. 3 hr. PR: CHPR 310, 311, and 312, or consent. The course provides health promotion students with the essential skills to be effective managers in the community health environment.
338. *Design of Health Promotion Programs*. I, II. 3 hr. PR: CHPR 310, 311, and 312, or consent. Principles of program development; techniques and models for successful programs; the impact of community restraints.
348. *Applied Health Promotion Programs*. I, II. 3 hr. PR: CHPR 310, 311, 312 and 338 or CONC: 338. Identification of specific educational needs; development of corrective and comprehensive programs; documentation of the problem, the program, and the implementation.
350. *Practicum*. 1-12 hr. PR: Majority of plan of study completed and consent. Students are assigned to a field placement based on prior health promotion work experience. Under the supervision of faculty, students assume major responsibility for a program with a community health promotion organization.
355. *Traffic Safety Management*. 3 hr. PR: CHPR 310, 311, and 312 or consent. Elements of traffic safety management in public and private sectors are examined. Role of management organization, approaches, and programs is examined in light of the need for a safe and efficient highway transportation system. 3 hr. lec.
357. *Alcohol Safety Programs*. 3 hr. Topics include alcohol programming in schools, community, and the workplace. Approaches, programs, and materials are examined for use at the local level. Scientific reports are studied to determine the effectiveness of various approaches to the alcohol problem.

373. *Professional Development*. 1-6 hr. PR: Consent. Specially designed experiences for those interested in advancing professional skills in a particular specialty.

391. *Advanced Topics*. 1-6 hr.

397. *Master's Degree Thesis*. 1-15 hr.

490. *Teaching Practicum*. 1-3 hr. PR: Graduate standing and consent. Supervised practices in college teaching of health-related learning experiences.

491. *Advanced Study*. 1-6 hr. PR: Graduate standing and consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

497. *Research*. Variable credit. PR: Consent.

Community Medicine (CMED)

311. *Methods of Biostatistics*. I. 3 hr. PR: MATH 3. Basic concepts of statistical models, distributions, probability, random variables, test of hypothesis, confidence intervals, regression, correlation, F and X^2 distributions, analysis of variance with emphasis on methods of biostatistics. (Equiv. to STAT 311.)

312. *Community Medicine*. (Second Year.) II. 2 hr. PR: Consent. The role of the physician in the prevention of disease and in the examination of health status in a community, with reference to demographic, economic, sociologic, environmental, and occupational factors. The organization of public health and medical care.

322. *Epidemiology and Biostatistics*. (First Year.) II. 2 hr. PR: Consent; medical students only. Epidemiological and statistical analysis of biologic phenomena as related to medicine. Emphasis on descriptive statistics, analytical epidemiology, statistical inference, measures of association, and evaluation of medical literature.

325. *Biology, Society, Human Health*. I. 3 hr. PR: Consent. This course will cover fundamental biological knowledge about diseased developments and individuals and populations. The interaction of social and physical environments with physiological, psychological, and emotional characteristics in

340. *Perspectives in Public Health*. I. 3 hr. PR: Consent. An introduction to the field of Public Health with an emphasis on the relationship and role of Public Health to other disciplines in resolving public health problems.

350. *Environmental Health*. II. 3 hr. PR: Consent. A review of issues illustrating the responsibilities and roles of the public health workplace in identifying, managing, and preventing casualties from environmental causes in air, water, soil, food, pesticides, and related subjects.

360. *Public Health Epidemiology*. I. 3 hr. PR: Consent or co-requisite of CMED 311. Epidemiological study of populations in terms of morbidity, mortality, and other vital statistics in WV. Scientific appraisal of public health problems and analysis of data will be emphasized. Evaluation of current literature is included.

389. *Practicum*. I, II, S. 3-9 hr. PR: Consent. For MPH students only. Underguidance of faculty and field counselors, MPH students will assume major responsibilities for intervention and practice projects during a semester in a community-based organization.

391. *Advanced Topics*. 1-6 hr. PR: Consent.

397. *Master's Degree Research or Thesis*. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

399. *Critical Review of Literature*. I & II. 1 hr. PR: MD or Consent. A review of current literature in occupational and environmental medicine, focused on analysis of validity and procedures followed; scrutiny of research reports, their design, methodology, data handling, documentation, and discussion of the data base. 1 hr. conf.

401. *Law and the Workplace*. SI. 1 hr. PR: MD degree, graduate standing, or consent. Philosophy, content, and procedures of current judicial bodies relevant to the practice of medicine in the industrial society, developed through a series of lectures followed by extensive discussion involving students from different curricular backgrounds. 1 hr. sem.

412. *Medical Aspects of Environmental Health*. I & II. 1 hr. PR: MD degree or consent. A review of issues illustrating the responsibilities and professional interaction of physicians in identifying, managing, and preventing casualties from environmental causes in air, water, soil, food, pesticides, and related subjects. 1 hr. lec.

490. *Teaching Practicum I and II*. 1-3 hr. Consent of chairperson. Supervised practice in college teaching of anatomy. Graded S or U.

491. *Advanced Study*. 1 hr. PR: Consent.

492. *Directed Study*. I, II, S. 1-6 hr. Directed study, readings, and research.

493. *Special Topics*. I, II, S. 1-6 hr. A study of contemporary topics selected from recent developments in the field.

494. *Special Seminars*. I, II, S. Special seminars arranged for advanced graduate students.

495. *Independent Study*. I, II, S. 1-6 hr. Faculty supervised study of topics not available through regular course offerings.

496. *Graduate Seminar*. 1 hr.

497. *Research in Occupational Medicine*. I & II. Variable credit. PR: Consent. Exercises in investigational medicine, illustrating the requirements and procedures relevant to the description and quantification of current issues in occupational medical practice.

498. *Thesis*. 2-4 hr. PR: Consent.

499. *Graduate Colloquium*. 1-6 hr. PR: Consent. For graduate students not seeking course work but who wish to meet residence requirements, use University facilities, and participate in academic and cultural programs.

Conjoined Basic Sciences (CC MD)

350. *Radiation Safety and Radionuclide Usage*. II. 1-2 hr. PR: PHYS 1 and 2, CHEM 15 and 16 or consent. Chemical, physical, and biological aspects of radiation; safety; handling and storage of radioactive materials; NRC and WVU regulations and licensing; detection and instrumentation, research, and clinical use of radioisotopes.

370. *Medical Genetics*. II. 2-4 hr. PR: Second-year medical student standing; graduate student in Genetics and Developmental Biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Application of genetic principles to human health and disease. (Also listed as GEN 370, MED 370, PEDI 370.)

375. *Neurobiology*. (For medical and a limited number of regular, full-time graduate students in the medical basic sciences.) II. 6 hr. PR: ANAT 301 and PSIO 345, or consent. Anatomy and physiology of the nervous system correlated with clinical neurology.

399. *Selective Experiences in Medicine*. (Fourth Year.) I, II, S. 6 hr. PR: Satisfactory completion of the first three years of medical curriculum. (Graded as S or U.) [The fourth year offers a wide range of opportunities. A one-month rotation in critical care, surgical subspecialty either a medicine, family medicine, or a pediatric subinternship and two months of a rural primary care rotation are all required in the fourth year. The student works with an adviser to select the remainder of the individual program. This program must also be approved by the associate dean in the Office of Student and Curricular Affairs. The year is composed of ten one-month blocks, four months of which must be spent in programs in West Virginia. Selections are available in all departments within the School of Medicine. A catalog is available that lists the specific guidelines for the fourth-year curriculum.]

Exercise Physiology (EXPH)

164. *Kinesiology*. I, II. 3 hr. PR: Junior standing. Anatomical, mechanical, and musculoskeletal study of the human body as the instrument for efficient performance of motor activities. (Laboratory work included.)

165. *Exercise Physiology I*. I, II. 3 hr. PR: Junior standing, consent. The study of the functioning of body systems during exercise and the acute and chronic adaptations that occur from exercise stress.

168. *Lab Techniques and Methods I*. I, II. 3 hr. Junior standing, EXPH 164, 165, consent. Techniques and methods for designing and conducting exercise programs for asymptomatic, healthy individuals.

194. *Professional Field Experience*. I, II, S. Variable credit 1-18 hr. PR: Consent. (May be repeated up to a maximum of 18 hours.) Prearranged experimental learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development. (Internship)

196. *Senior Thesis*. I, II, S. 1-3 hr. PR: Consent. (3 hr. Arranged).

360. *Biomechanical Analysis of Sport and Physical Activity*. II, S. 3 hr. PR: EXPH 164 and 165 or equiv.; SS 315. Advanced principles of body mechanics and analysis of muscle and joint actions in coordinated movement and neuromuscular physiology.

367. *Exercise Physiology II*. II. 3 hr. PR: Consent. Thorough and workable knowledge of the functioning of body systems during exercise, the acute and chronic adaptations that occur, and the practical application of work physiology.

368. *Diabetes and Exercise*. II. 3 hr. PR: Graduate standing, consent. In depth study of topics related to the comprehensive management of patients with diabetes mellitus, with special emphasis on the used of exercise in diabetes care.

370. *Lab Techniques & Methods II*. I, S. 3 hr. PR: Graduate standing, consent. This course teaches the techniques and methods used to monitor physiologic systems in humans during rest and exercise. It includes methods used to assess the health status of individuals desirous of exercise testing or prescription.

371. *Stress Testing*. II. 3 hr. EXPH 370, consent. In-depth study of graded exercise testing in laboratory or field situations. Includes protocols for athletes, asymptomatic individuals, and special populations.

372. *Professional Field Placement II*. I, II, S. Variable credit, 1-18 hr. PR: EXPH 370, 371, and consent. Prearranged program to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development. (Internship)

391. *Advanced Topics*. 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

491. *Advanced Study*. I, II, S. 1-6 hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures. (*Laboratory Techniques and Methods*. I, S. 3 hr.; *Diabetes and Exercise*. II. 3 hr.; *Internship*. I, II, S. 6 hr.)

492. *Directed Study*. I, II, S. 1-6 hr. Directed study, reading, and/or research. (*Stress Testing*. II. 3-6 hr.)

Family Medicine (FMED)

331. *Clerkship*. PR: Successful Completion of first two years of medical school. A four week ambulatory experience in the office setting; rotations to clinics within the University system and also to private practitioner offices throughout the state, lecture. Laboratory, conference, and patient care.

Medical Technology (MTEC)

1. *Orientation to Medical Technology*. I, II, 2 hr. Introduction to the profession of medical technology and the clinical laboratory specialties. (Pass-Fail grading only.)

100. *Medical Technology*. 4 hr. PR: Acceptance into the Medical Technology Program as a first-year student or consent by Director. Clinical laboratory procedures employed in patient diagnosis in the areas of blood coagulation, blood banking, hematology, and clinical microscopy.

101. *Medical Technology*. II. 4 hr. Continuation of M. Tec. 100.

200. *Orientation*. S, I, II. No credit. (For senior students.) Principles and practices of medical technology in relation to the hospital and clinics. (Pass-Fail grading only.)

201. *Phlebotomy*. S, I, II. Clinical laboratory practice in phlebotomy to include venipuncture, fingersticks, and heel sticks. Isolation, universal precautions and other safety techniques are included.

202. *Laboratory Math, Quality Control, Computers*. II. 2 hr. Lectures and practice sessions in laboratory mathematics, techniques, and calculations in quality control and an introduction to computers to include terminology and basic operation.

210. *Clinical Laboratory Mycology*. II. 1 hr. How to isolate and identify the more commonly encountered pathogenic fungi as well as those fungi frequently seen as laboratory contaminants. The course will include basic taxonomy, isolation procedures, and identifying characteristics.

220. *Immunohematology and Blood Banking*. I, II. 2 hr. Lectures on immuno-hematology and blood banking theory and practice.

221. *Immunohematology and Blood Banking Laboratory*. Arranged. 5 hr. Clinical laboratory practice in blood banking procedures. Emphasis on procedures required for collection and preparation of blood and blood components for transfusion, special techniques, antibody studies, and problem solving.

229. *Basic Clinical Chemistry*. II. 1 hr. PR: Students in Medical Technology Program. Basic clinical chemistry procedures and theory. 1 hr. lec.

230. *Clinical Chemistry*. I, II. 2 hr. Lectures on principles of clinical chemistry procedures; their clinical significance and implication in diagnosis.

231. *Clinical Chemistry Laboratory*. Arranged. 5 hr. Practice in the clinical chemistry laboratory.

240. *Clinical Hematology*. I, II. 2 hr. Lectures in hematologic theory and practice.

241. *Clinical Hematology Laboratory*. Arranged. 5 hr. Application of hematological principles to laboratory medicine. Emphasis on routine and specialized procedures, evaluation and problem solving.

250. *Clinical Microbiology*. I, II. 2 hr. Presentation and discussion of current methodology employed in the processing of clinical microbiology specimens, isolation and identification of pathogenic microorganisms, and determination of antimicrobial sensitivities.

251. *Clinical Microbiology Laboratory*. Arranged. 5 hr. Practice in the clinical microbiology laboratory to include isolation and identification of microorganisms; processing of specimens and antibiograms. Includes experiences in pathogenic mycology and parasitology.

260. *Instrumentation*. I, II, S. 2 hr. Principles of clinical laboratory instrumentation for medical technologists including principles of operation, maintenance, and troubleshooting.

265. *Laboratory Management*. I, II. 2 hr. Laboratory organization, economics, ethics, and records.

270. *Clinical Microscopy*. I, II, S. 1 hr. PR: Senior standing in Medical Technology or consent. Lecture to cover the screening of body fluids (urine, gastric juices, etc.) for abnormalities and pregnancy testing.

271. *Clinical Microscopy Laboratory*. I, II, S. 1 hr. PR: Senior standing in Medical Technology. Laboratory practicum in urinalysis, gastric analysis, pregnancy tests, and other procedures.

275. *Medical Relevance of Laboratory Analysis*. 1 hr. PR: Senior status in Medical Technology. Case presentations of pathologic entities encountered in the clinical laboratory. (Pass/Fail grading.)

280. *Clinical Immunology*. I, II, S. 3 hr. Lectures and laboratory practice in the principles of clinical immunology and their relationship to clinical laboratory technology.

291. *Research, Educational Methodology*. II. 2 hr. Lectures in ethics, techniques of research, and techniques of educational methodology for medical technology students.

Medicine (MED)

321. *Physical Diagnosis—Introduction to Medicine*. I, II. 5 hr. PR: Consent. Examination of normal subjects. Clinical concepts and practical experience in history taking and physical examination.

331. *Clinical Clerkship in Medicine*. (Third Year.) CR. Required of third-year medical students. The individual student is assigned responsibility for specific patients from the inpatient and outpatient service at West Virginia University Health Science Center or Charleston Area Medical Center service. The student is an integral part of the team providing diagnostic and treatment services needed by the patient, under direct supervision of members of the faculty of the department. The student elicits the patient's history, performs physical examinations, and performs or secures indicated laboratory and clinical studies. The student records findings and presents case reports for discussion by members of the faculty during hospital rounds or outpatient clinics. The student attends such staff conferences, etc., as directed by the departments. Clerkship in medicine occupies 12 weeks.

370. *Medical Genetics*. II. II. 2-4 hr. PR: Second-year Medical student standing; graduate student in Genetics and Developmental Biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Application of genetic principles to human health and disease. (Also listed as GEN 370, PEDI 370, CCMD 370.)

Microbiology and Immunology (MBIM)

26. *Microbiology II*. (For students in nursing and dental hygiene programs.); All students must have consent of instructor. I. 4 hr. PR: CHEM 11, 12 or equiv .

220. *Microbiology*. (For pharmacy students.) II. 4 hr. PR or Conc.: Biochemistry. Pathogenic microorganisms, including immunology and antimicrobial agents.

223. *Microbiology*. (For medical technology students; other students with consent.) II. 5 hr. PR or Conc.: Biochemistry. Basic microbiology. Emphasis on immunology, pathogenic microorganisms, and clinical laboratory techniques.

224. *Parasitology*. (For medical technology students; other students with consent.) II. 4 hr. Study of animal parasites and disease vectors with emphasis on disease manifestations, parasite biology and laboratory diagnosis.

301. *Microbiology*. (For medical students and a limited number of graduate students in the Health Science Center's basic science departments.) I. 5-7 hr. PR: Organic chemistry, biochemistry. Detailed study of pathogenic microorganisms and immunology. Emphasis on use of microbiology in solving clinical problems.

302. *Microbiology*. (For dental students only.) I. 5 hr. PR: Organic chemistry. Detailed study of pathogenic microorganisms. Emphasis on oral flora.

310. *Structure and Activities of Microorganisms*. II. 3 hr. PR or Conc.: Biochemistry, consent. Molecular biology of *e. coli* and other selected organisms.

317. *Special Problems in Microbiology*. I, II, S. 1-7 hr. per semester.
 [A. *Graduate Immunology and Virology*. I. 3 hr. PR: Consent
Parasitology laboratory. II. 1 hr. PR: Consent.
 B. *Graduate Pathogenic Microbiology*. II. 3 hr. PR: Consent.
 C. *Special Problems in Post Graduate Dental Microbiology*. II. 4 hr. PR: Consent.]
327. *Parasitology*. (For graduate students.) II. 4 hr. PR: Consent. Study of animal parasites and disease vectors with emphasis on disease manifestations, parasite biology, laboratory diagnosis, and current concepts in parasitological research.
391. *Advanced Topics*. I, II, S. Variable 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.
 [A. *Laboratory Rotation*. I. 3 hr. PR: Consent; For graduate students in Microbiology and Immunology. Assigned study to develop research laboratory techniques. Graded S or U.
 B. *Immunology*. I, II, S. VR. PR: Consent. Independent study in immunology.]
397. *Master's Degree Research or Thesis*. I, II, S. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project. [Students may enroll more than once. Graded S or U. Student is required to pursue study on a problem in the student's area of concentration.]
399. *Special Topics in Microbiology, Cell Biology*. II. 3 hr. PR: Biochemistry; 1 yr. undergraduate biology; consent. Lectures in selected areas of cell biology.
490. *Teaching Practicum*. I and II. 1-3 hr. PR: Consent. Supervised practices in teaching of microbiology. Graded as S or U.
491. *Advanced Study*.
Pathogenic Bacteriology. I. 2 hr. PR: MBIM 301, 310 or equiv. Consent. Pathogenic bacteriology with an emphasis on the mechanisms of pathogenesis. Topics include microbial adherence, toxin production and mechanisms, and normal flora and disease
Clinical Laboratory Bacteriology. II. VR. PR: MBIM 301, 310, or equiv. Consent. Lectures on the identification of pathogenic microorganisms with an emphasis on bacteria. The laboratory includes a rotation through the hospital clinical microbiology laboratory. Limited enrollment. Graded as S or U.
Microbial Genetics. I. 3 hr. PR: MBIM 310 or equiv. Consent. Molecular aspects of mutation, gene transfer mechanisms, genetic mapping, and genetic control using bacteria and bacteriophage systems as models.
Microbial Metabolism. II. 2 hr. PR: MBIM 310, or equiv., biochemistry, consent. Physiology, metabolism, and regulation of representative microbial groups.
Microbial Metabolism Laboratory. II. 1 hr. PR: Open to departmental graduate students only. Research techniques in metabolic regulation.
Medical Mycology. I. 3 hr. PR: Consent. Advanced study of fungi of medical importance, including the pathobiology of mycoses and toxicoses.
Molecular Virology. I. 3 hr. PR: MBIM 301, 310, or equiv., consent. Molecular biology of viruses that are important both biologically and medically. Includes a basic introduction to replication and genetics as well as current topics in molecular virology.

Developmental Immunology. I. 3 hr. PR: Consent. Examines the development of the lymphoid components of the immune system (B and T lymphocytes) and inter actions leading to effective immune responses.

Cellular and Genetic Basis of the Immune Response. I. 3 hr. PR: Consent. Emphasis is on contemporary issues in understanding the genetic and cellular elements that impact immune responses.

Contemporary Topics in Immunobiology II. 3 hr. PR: Consent. Detailed coverage of major issues of contemporary research in immunobiology.

Systems Immunology II. 3 hr. PR: Consent. An integrative systems approach to immunology stressing how immunologic recognition is translated into biologic consequences. Advanced treatment of different aspects of the efferent arm of immune responses.

496. *Seminar.* I, II. 1 hr. PR: Consent. Graduate students present at least one seminar to assembled faculty and students in Microbiology and Immunology. Graded as S or U.

497. *Research or Dissertation.* I, II, S. 1-15 hr. Students may enroll more than once. Graded S or U.

Neurology (NEUR)

341. *Clinical Clerkship in Neurology.* (Third Year.) CR. Required of third-year students. Basic fundamentals of the neurological evaluation and neurological diseases. Evaluation and treatment of hospitalized patients with neurological illnesses performed under supervision of attending and resident physicians. Conferences and correlative instruction in neuropathology and neuroradiology.

Obstetrics and Gynecology (OBST)

341. *Clinical Clerkship in Obstetrics and Gynecology.* (Required of third-year medical students.) Presents core knowledge of obstetrics and gynecology with small group instructional seminars, ward rounds, didactic teaching sessions and grand rounds conducted by faculty, house officers, visiting faculty, and students. Students participate in the care of all inpatients and attend all departmental clinics.

Pathology (PATH)

128. *Introduction to Basic Pathology.* I. 2 hr. PR: Enrollment in dental hygiene or physical therapy, or consent. A study of the basic pathologic processes in man.

129. *Introduction to Oral Pathology.* II. 3 hr. PR: PATH 128, dental hygiene major, or consent. Application of fundamental knowledge of general pathology to pathological conditions that occur in the oral cavity.

328. *General Pathology.* (For dental and graduate students). II. 5 hr. PR: Consent. The broad spectrum of human diseases is studied at the clinical, physiological, and biochemical levels.

338. *Oral Pathology.* (For dental students.) II. and S. 3 hr. PR: Consent; PATH 328. Application of knowledge gained in general pathology to study specific diseases affecting the oral cavity.

350. *Hematology*. 3 hr. (For certain graduate students, with consent of the chairperson.) Includes morphologic description of formed elements of blood including classification of red blood cell, white blood cell, and platelet disorders. Case material and slide reviews are integral parts of the course work.

351. *Pathology and Laboratory Medicine 1*. (For medical students and limited number of regular full-time graduate students in medical basic sciences and consent of the chairperson.) I. 8 hr. PR: Medicine I Curriculum. Presents pathology as a body of knowledge and a discipline, including laboratory aspects of disease. General pathology, including cell injury, inflammation, neoplasia, thrombosis and circulatory disturbances, is followed by a systemic approach to disease states.

352. *Pathology and Laboratory Medicine 2*. (For dental students and limited number of regular full-time graduate students in medical basic sciences and consent of the chairperson). II. 7 hr. PR: Path 351. Continuation of Path. 351.

353. *Oral Pathology*. (For dental students.) I. 2 hr. PR: Consent; DENT 338. Continuation of DENT 338.

355. *Clinico-Pathologic Correlation Conference*. (For dental students.) II. 1 hr. PR: Consent; DENT 338, 353. Interesting oral lesions are demonstrated clinically, radiographically, and histologically. Diagnosis is established and treatment discussed by faculty and students.

356. *Advanced Pathology*. I, II. 3 hr. PR: Path. 328 or 351; consent. Microscopic and gross specimens from selected autopsies.

382. *Advanced Oral Histopathology*. (For dental and graduate students, residents, and interns.) I and II. 1 hr. PR: Consent; DENT 338, 353. An elective seminar stressing the significant microscopic features and diagnosis of various oral lesions.

401. *Special Studies in Oral Pathology*. (For dental and graduate students, residents, and interns.) I. 1—3 hr. PR: Consent. Advanced study of local or systemic disease processes affecting oral structures through seminars, assignment of specific topics, or research activities.

491. *Advanced Study*. I, II, S. 1-6 hr. PR: Consent. Investigation in advanced topics which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

497. *Research*. 1-15 hr.

Pediatrics (PEDI)

331. *Clinical Clerkship in Pediatrics*. (Third Year.) CR. Required of third-year medical students. See description of clinical clerkship under MED 331. Clerkship in Pediatrics occupies 6 weeks.

370. *Medical Genetics*. II. 2-4 hr. PR: Second-year Medical student standing; graduate student in Genetics and Developmental Biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Application of genetic principles to human health and disease. (Also listed as CCMD 370, GEN 370, MED 370.)

Pharmacology and Toxicology (PCOL)

160. *Pharmacology*. (For undergraduate students in the paramedical sciences.) II. 3 hr. Interactions of clinically useful therapeutic agents with the mammalian system.

243. *Pharmacology for Pharmacy Students*. I. 4 hr. PR: Completion of first year in Pharmacy; approval of course director. Principles, pharmacodynamic actions, and therapeutic applications of clinically useful drugs.

360. *Pharmacology and Therapeutics*. (For dental and graduate students.) I. 4 hr. PR: Dental student standing or consent. Lecture and demonstrations on pharmacological actions and therapeutic uses of drugs.

361. *Pharmacology* (For medical students and a limited number of regular, full-time graduate students in basic medical science departments.) II. 1-6 hr. PR: Consent of department chairperson. Lecture-conference-laboratory on principles, pharmacodynamic actions, and therapeutic applications of clinically useful drugs.

362. *Occupational Toxicology*. II. 3 hr. PR: Consent. General principles of toxicology with special emphasis on occupational health. Classes of chemicals which pose problems in the workplace will be emphasized.

364. *Advanced Pharmacology*. I. (Alternate Years.) 1-6 hr. PR: PCOL 361 or consent. Advanced lectures and discussion of general principles of pharmacology and toxicology and advanced lectures in biochemical, endocrine, pulmonary, and cardiovascular pharmacology. 1-6 hr. lec. (Offered every second year.)

367. *Advanced Neuropharmacology*. I. 1-6 hr. PR: PCOL 361 or consent. Advanced lectures and discussion on drug receptor theory, neurophysiological aspects of pharmacology, supersensitivity, and the actions of drugs on the central and peripheral nervous system. 1-6 hr. lec. (Offered every second year.)

461. *Seminar in Pharmacology*. I, II. 1 hr. per sem. PR: PCOL 361 or graduate status in basic medical sciences.

462. *Literature Survey*. I, II. 1 hr. per sem. PR: Graduate status in pharmacology and toxicology. Current literature pertinent to pharmacology and toxicology including journals of allied biological sciences.

490. *Teaching Practicum*. I, II. 1-3 hr. per sem. PR: PCOL 361 and consent. (For advanced graduate students.) Critical evaluation of preparation and delivery of lectures in specified areas of pharmacology and toxicology.

491. *Advanced Study*. I, II. 1-6 hr. PR: Consent of chairperson.

Physical Therapy (PT)

110. *Functional Anatomy*. I. 3 hr. The musculoskeletal system including biomechanics, principles of movement, and analysis of muscle and joint action. Normal and pathological gait.

111. *Physical Therapy Principles and Physical Agents*. I. 4 hr. Lecture- laboratory introduction to physical therapy and orientation to patients. Safety procedures, gait training, and nursing procedures related to physical therapy. Theory and application of hydrotherapy, thermotherapy, cryotherapy, actinotherapy, massage, and ultrasound are presented.

112. *Cardiopulmonary Physical Therapy*. II. 3 hr. Correlation of anatomy, physiology, and pathology for treatment of cardiopulmonary conditions. Laboratory in cardiopulmonary evaluation, cardiac and pulmonary rehabilitation procedures, and respiratory treatment techniques. Lectures and case presentations in appropriate medical and surgical conditions.

114. *Medicine and Neurology*. II. 3 hr. Lectures in medicine including dermatology, aging, neurology, pharmacology and vascular disorders.

116. *Clinical Education 1*. II. 1 hr. Students perform basic treatment procedures under the supervision of experienced therapists in various clinics. (Graded Pass-Fail only.)

117. *Seminar*. I. 1 hr. Investigation of selected problems and issues.

118. *Basic Therapeutic Exercise*. II. 3 hr. Theory and clinical application of evaluation techniques including goniometry and manual muscle testing. The physiological basis and therapeutic application of passive and active forms of exercise are also studied. Emphasis is on progressive resistive and flexibility exercises.

120. *Human Development*. I. 3 hr. Presents human development across the life span with a special emphasis on neuromotor development. Topics include genetics, embryology, infancy, childhood, adolescence, adulthood, aging, and death.

130. *Functional Anatomy 2*. II. 3 hr. Continuation of PT 110 with emphasis on normal movement to serve as a basis for critical evaluation of abnormal body movement. Includes biomechanical measurements, calculations, applied anatomy, body mechanics, and gait.

270. *Organization and Management*. II. 4 hr. Basic principles and philosophy of management and the organization with emphasis on interpersonal relationship within an organization, styles of tasks, conflict management, verbal and nonverbal communications, decision analysis and fiscal management.

271. *Electrotherapy and Electromyography*. I. 4 hr. Orientation to theory and application of electrical currents. Laboratory experience in electrical diagnosis and treatment procedures (including high and low volt stimulation, nerve conduction studies, and the use of electrical stimulation for pain control) is provided.

272. *Professional and Community Relationships*. II. 2 hr. Community health organization, including local, state, and national facets such as Medicare- Medicaid and welfare. Planning based on chronic disease epidemiology. Role of physical therapist and other allied health personnel in providing comprehensive health care for chronically ill and geriatric population. Students become involved in care of the home-bound.

273. *Physical Evaluation*. I. 4 hr. Lectures, laboratory practice, and case study presentations are utilized to study the principles and techniques for examining the treatment disorders of the neuromusculoskeletal systems. An in-depth study of extremity joint mobilization techniques is also provided.

274. *Orthopedic Physical Therapy*. II. 3 hr. Continuation of PT 273 format and is a continuation of that course. Evaluation and rehabilitation of mechanical disorders of the spine are emphasized together with physical therapy and orthopedic management of selected pediatric disorders.

275. *Professional Literature and Research*. I. I. 3 hr. Introduces research theory and application with special emphasis on physical therapy. Includes elements of research design, hypothesis testing, methodology, literature review, analysis, and statistical methods. Students are required to complete a research proposal.

276. *Elective Study*. II. 3 hr. Highly skilled techniques used in physical therapy are many and varied. It is beyond the scope of any baccalaureate program to offer such skill to every student in all areas. Therapists are beginning to specialize in certain areas. The student chooses a particular area and develops it to the student's fullest capabilities in the allotted time.

277. *Clinical Teaching*. I. 2 hr. Emphasis on the physical therapist fulfilling numerous teaching roles. Students develop skill and techniques in the facilitation of learning, objective writing, presenting information, A-V utilization, and development of evaluation tools for both clinical and didactic settings.

278. *Correlative Rehabilitation*. II. 5 hr. Lecture, case presentations, and laboratory practice concerning the pathology, evaluation, and treatment in the areas of spinal cord injuries, amputations, and burns. Underlying philosophy and principles of comprehensive care of the handicapped. Prosthetics, orthotics, bowel and bladder training, assistive and supportive devices, and wheelchair evaluations.

279. *Advanced Therapeutic Exercise*. I. 4 hr. Correlation of the basic principles acquired from study of gross anatomy, neuroanatomy, pathology, physiology, and fundamental anatomy with the scientific application of bodily movement. In-depth study of types and desired effects of exercise methods and techniques primarily concerned with neuromuscular reeducation. Laboratory practice consists of application of specific neurophysiological techniques to patients presented with various neuromuscular problems.

281. *Clinical Education 2*. I. 1 hr. Continuation of PT 116. The student's participation in treatment programs is increased and enlarged to include basic testing and evaluation procedures. (Graded Pass-Fail only.)

282. *Clinical Education 3*. II. 1 hr. Supervised experience in more specialized procedures and testing techniques and patient program design. (Graded Pass-Fail only.)

285. *Professional Literature and Research 2*. II. 3 hr. Continuation of PT 275. Students carry out data collections, analysis, and interpretation of their own supervised independent research projects. Written and oral presentations of the completed projects are required.

290. *Clinical Education 4*. S. 1-12 hr. Three full-time summer affiliations of six to eight weeks each in a variety of extramural facilities, such as a general hospital, children's facilities, rehabilitation services, and public health. (Graded Pass-Fail only.)

Physiology (PSIO)

141. *Elementary Physiology*. (For undergraduate students in paramedical sciences.) II. 4 hr. PR: College biology and chemistry, or consent. Systematic presentation of basic concepts. 3 hr. lec., 1 hr. lab.

241. *Mechanisms of Body Function*. 4 hr. PR: College chemistry, biology, physics, and algebra or graduate status and consent. A systematic examination of the homeostatic functions of the human body with emphasis on the physicochemical mechanisms involved. Pathophysiology and clinical correlations are introduced in relation to normal physiology.

341. *Physiological Methods 1*. II. 1-5 hr. PR: Consent. Research techniques and strategies for physiology.

342. *Physiological Methods 2*. II. 1-5 hr. PR: Consent. Research techniques and strategies for physiology

343. *Fundamentals of Physiology*. (For dental students and a limited number of regular full-time graduate students in the Health Sciences Center's basic sciences departments.) I. 5 hr. PR: College physics, algebra, chemistry, and consent of department chairperson. Analysis of basic facts and concepts relating to cellular processes, organ systems, and their control. 3 lec., 1 conf., 1 lab.

344. *Medical Physiology 1*. (For medical and a limited number of regular full-time graduate students in the Health Sciences Center's basic sciences departments basic sciences departments.) I. 5 hr. PR: College physics, algebra, chemistry, and consent of department chairperson. Analysis of basic facts and concepts relating to cellular processes, organ systems, and their control with clinical correlations. 5 lec., 1 conf.-lab.

345. *Medical Physiology 2*. (For medical and a limited number of regular full-time graduate students in the Health Sciences Center's basic sciences departments.) 5 hr. PR: PSIO 344 and consent of department chairperson. Continuation of PSIO 344. 5 lec., 1 conf.-lab.

346. *Neurophysiology*. (For graduate students in the Health Sciences Center's basic sciences departments and a limited number of regular full-time graduate students.) II. 1-4 hr. PR: MATH 3 or 141, Phys. 1 and 2 or consent of department chairperson. Properties of excitable tissues (nerve and muscle), synaptic transmission, reflexes and central nervous system function, and behavior. 1-3 lec., 1 conf.

350. *Graduate Physiology 1*. (For graduate students in the Health Sciences Center's basic sciences departments and a limited number of other regular full-time graduate students.) I 6 hr. PR: Calculus, college physics, organic chemistry, biology, and consent of department chairperson. Analysis of basic facts and concepts relating to cellular processes, organ systems, and their control.

351. *Graduate Physiology 2*. (For graduate students in the Health Sciences Center's basic sciences departments and a limited number of other regular full-time graduate students.) II 6 hr. PR: PHYS 344 or 350 and consent of department chairperson. Continuation of PHYS 350.

399. *Special Topics*. I, II, S. 1-4 hr. PR: Consent. Assigned study to develop research skills.

444. *Graduate Seminar*. I, II. 2 hr. PR: Graduate standing and consent. (Graded S/U.)

490. *Teaching Practicum*. I, II. 1-3 hr. PR: Consent. Supervised practices in college teaching of physiology. (Graded as S or U.)

491. *Advanced Physiology*. I, II, S. 1-15 hr. PR: Consent. Lecture-conference in; cellular physiology, neurophysiology, circulation, respiration, acid-base and renal physiology, digestion and energy metabolism, and endocrinology. 3 lec., 3 conf.

497. *Research in Physiology*. I, II, S. 1-15 hr.

498. *Thesis*. I, II, S. 2-4 hr. PR: Consent. (Graded as S or U.)

499. *Graduate Colloquium*. I, II. 1 hr. PR: Consent. (Graded as S or U.)

Surgery (SURG)

341. *Clinical Clerkship in Surgery*. (Third Year.) CR. Required of third-year medical students. Clinical clerks are assigned responsibility for hospitalized surgical patients under supervision of house staff and attending surgeons. Students are an integral part of the team providing diagnostic and treatment services and are expected to take histories, perform physical examinations, and participate in ward and laboratory procedures. A course of surgical lectures, designed to outline surgical core curriculum, is given concurrently. The student is expected to attend the daily rounds and conferences arranged by the department.

399. *Selected Experiences in Surgery*. (Fourth Year.) (See Conjoined Courses.)

School of Nursing

Nursing (NSG)

(For Nursing Majors Only)

10. *Health and the Caring Professions*. II. S. 3 hr. Health promotion and risk reduction; data collection; cultural diversity; values that contribute to health; interpersonal communication in promoting professional relationships.

21. *Human Responses 1*. I. 1 hr. PR: NSG 10 and Soph. standing or consent; computer technology. Human responses that promote health throughout the life span; individual health assessment.

23. *Seminar I: Professional Role Development*. I. 1 hr. PR: NSG 10, Soph. standing in NSG or consent. Characteristics of self in role transition; values and beliefs; personal and professional behaviors in nursing care.

25. *Nursing Interventions 1*. I. 3 hr. Conc.: NSG 21; Soph. standing or consent. Critical thinking in application of the nursing process in individuals with altered mobility, comfort, or potential infection; health protection, promotion and maintenance interventions.

41. *Human Responses 2*. II. 2 hr. PR: NSG 25; Conc.: NSG 45. Enhances student understanding of human responses to minor deviations in health throughout the life span; professional role in health restoration; family health assessment.

43. *Seminar II: Professional Role Development*. II. 2 hr. PR: NSG 23. Emphasis on developing caring behaviors through examination of issues related to moral/ethical integrity; values, culture, and family.

45. *Nursing Interventions 2*. II. 4 hr. PR: NSG 25. Critical thinking in the application of the nursing process to individuals with minor deviations in health protection, health protection, health restoration, and health promotion/maintenance.

61. *Health Assessment*. S. 3 hr. PR: NSG 25 or consent. Comprehensive, in-depth assessment of the client's health status, health patterns, physical examination and health history. Interviewing techniques including taped interactions and accurate recording of data for clients across the life span.

131. *Multiple System Dysfunction*. I, II. 2 hr. PR: NSG 61 or consent; Conc. NSG 135. Human response to multiple system dysfunction. Professional role in complex physiological health restoration.

133. *Seminar III: Professional Role Development*. I. 2 hr. PR: NSG 43 or consent. Managing individual/family/group systems. Focus on ethical decision making in health care situations.

135. *Nursing Interventions 3*. I, II. 5 hr. PR: NSG 61 or consent; Conc: NSG 131. Advanced physiological assessment and independent nursing interventions that promote health restoration. Advanced collaborative nursing activities.

136. *Alterations in Physical Health*. I, II. 3 hr. PR: PSIO 141, Conc: NSG 131, 135. Deviations in normal physiological functioning and physical compensation mechanisms; focus is on identification of physical changes and nursing support of normal physiological responses.

151. *Psychosocial Dysfunction*. I, II. 2 hr. PR: NSG 61 or consent; Conc: NSG 155. Human response to multiple system dysfunction; professionals role in complex psychosocial health restoration.
153. *Seminar IV: Professional Role Development*. II. 2 hr. PR: NSG 133 or consent. Communication skills within the multidisciplinary team; collaborative roles and team dynamics.
155. *Nursing Interventions 4*. I, II. 5 hr. PR: NSG 61 or consent. Advanced psychosocial assessment and independent nursing interventions to promote health restoration; advanced collaborative nursing activities.
156. *Alterations in Psychosocial Health*. I, II. 3 hr. PR: PSYC 141 or consent, conc: NSG 151, 155. Normal psychosocial functions change as a result of altered health; integration of developmental changes and preventive aspects of health.
199. *Writing in Nursing*. 1 hr. Integration of the content learned in selected courses with writing about important topics, must be taken concurrently with an approved professional nursing role seminar. (For nursing majors only; concurrent courses Nurs. 133 Professional Role Seminar III or Nurs. 153 Professional Role Seminar IV).
221. *System Responses to Physiological Dysfunction*. I, II. 3 hr. PR: Senior standing in NSG or consent. Conc: NSG 225. Emphasis on support for vulnerable individual/family/group responses to acute life threatening situations; nursing role in providing care to unstable, individuals/families/groups.
223. *Seminar V: Professional Role Development*. I. 2 hr. PR: NSG 153 or consent. The professional's role in creating and managing the health care milieu; the nurse manager role and interventions in support of the client/family experiencing acute or long term health problems.
225. *Nursing Interventions 5*. I, II. 6 hr. PR: Senior standing in Nursing or consent. Conc: NSG 221. Professional nursing role in supporting human responses to acute, life-threatening situations involving identified vulnerable populations; therapeutic nursing interventions specific to aid human responses of families of individuals with physiologic instability.
241. *Community Response to Health Promotion*. I, II. 3 hr. PR: Senior standing in Nursing or consent. Conc: NSG 245. Community Health Nursing processes, emphasis on the professional nursing role in the assessment of community health needs and identification of health action potential.
243. *Seminar VI: Professional Role Development*. I, II. 2 hr. PR: NSG 223 or consent. Emphasis on professional nursing role in health promotion/risk reduction in groups/communities of vulnerable populations. Multidisciplinary/team approaches to problem solving in community health.
245. *Nursing Interventions 6*. I, II. PR: Senior standing in NSG or consent. Collaborative role of the nurse in assisting communities to develop and implement plans for health promotion/risk reduction across the life span; vulnerable populations.
276. *Introduction to Nursing Research*. I, II. 3 hr. PR: Stat 101 or consent. Theory, concepts and methods of the research process intended to provide a basic understanding that is necessary for intelligent consumership of research findings.

291. *Special Topics*. I, II, S. 1-6 hr.

322. *Theory and Critical Analysis*. I, S. 3 hr. Introduction to the theoretical foundations of the discipline of nursing as a basis for applying critical thinking skills to the development of a conceptual framework for nursing.

324. *Research, Evaluation, and Analysis*. II. 5 hr. PR: NSG 322. An overview of research, measurement, and evaluation models useful to nursing practice.

326. *Health Policy, Issues and Ethics*. 3 hr. PR: NSG 322 or Consent. A focus on the social, political, technological, ethical, and economical dynamics that shape health care delivery.

332. *Concepts of Advanced Nursing*. I, S. 2 hr. PR: NSG 322. Exploration and evaluation of theories and research in leadership, education, organization, and management concepts applicable in the advanced practice of nursing.

333. *Family, Community, Rural Health Systems*. I, II. 2 hr. PR: NSG 322. Exploration and analysis of theories and research on family, community, and rural health systems applicable in the advanced practice of nursing.

336. *Clinical Diagnosis Across the Lifespan*. I, S. 3 hr. PR: NSG 322. Introduction to the knowledge and skills basic to the assessment of health status, diagnosis, treatment, and evaluation in the advanced practice of nursing.

340. *Specialty Course Women's Health*. I. 4 hr. PR: NSG 336. Application of the theoretical foundations of advanced practice nursing in the care of women in rural settings; management of care for prevention, intervention, and evaluation.

341. *Women's Health Practicum I*. II. 6 hr. PR: NSG 340. Implementation of theory-based nursing practice with women in rural community systems; student development of advanced practice role in managing, consulting, and caring for women.

342. *Women's Health Practicum II*. S. 6 hr. PR: NSG 341. Supervised clinical experience under the direction of an advanced practice nurse faculty in the delivery of primary health care to women in rural areas.

350. *Specialty Course Child Health*. I. 4 hr. PR: NSG 336. Application of the theoretical foundations of advanced practice nursing in child health; Management of care for prevention, intervention, and evaluation.

351. *Child Health Practicum I*. I, II. 6 hr. PR: NSG 350. Implementation of theory-based nursing practice with children in rural community systems; student's develop the advanced practice role in managing, consulting, and caring for children.

352. *Child Health Practicum II*. I, II. 6 hr. PR: NSG 351. Supervised clinical experience under the direction of an advanced practice nurse faculty in the delivery of primary health care to children in rural areas.

360. *Specialty Course, Adult Elder Health*. I. 4 hr. PR: NSG 336. Application of the theoretical foundations of advanced practice nursing in the care of adult elders in rural settings; management of care for prevention, intervention, and evaluation.

361. *Adult/Elder Health Practicum I*. I. 6 hr. PR: NSG 360. Implementation of theory-based advanced nursing practice with the adult/elder population; students develop the advanced practice role in managing, consulting, and caring for the adult/elder population in the community.

362. *Adult/Elder Care Practicum II*. II. 6 hr. PR: NSG 361. Supervised clinical experience under the direction of an advanced practice nurse faculty in the delivery of primary health care to adult/elders in rural community settings.

370. *Specialty Course, Administration*. S. 4 hr. NSG 336. Application of the theoretical foundations of nursing administration.

371. *Nursing Administration Practicum I*. I. 6 hr. PR: NSG 370. Introduction to organization theory in relation to the leadership role; concepts and methods used to facilitate and coordinate nursing services.

372. *Administration Practicum II*. II. 6 hr. PR: NSG 371. Application of the integrative processes required by nurse executives to ensure health care system effectiveness.

375. *Education Practicum*. I, II. 6 hr. PR: NSG 336, specialty cognate, and specialty practicum 1 in area of interest. Supervised practice in the application of theories and methods related to nursing education.

380. *Specialty Course, Rural Family Health*. I. 4 hr. PR: NSG 336. Application of the theoretical foundations of advanced practice nursing in rural family health care; management of care for prevention, intervention, and evaluation.

381. *Rural Family Health Practicum 1*. I, II, S. 6 hr. PR: NSG 380. Implementation of theory-based advanced nursing practice with individuals, families, and groups in the rural community systems; student development of the advanced practice role in managing, consulting, and caring for families.

382. *Rural Family Health, Practicum II*. II. 6 hr. PR: NSG 381. Supervised clinical experience under the direction of an advanced practice nurse faculty in the delivery of primary health care to individuals, families, and groups in rural areas.

391. *Advanced Study*. I, II, S. 1-3 hr. PR: Graduate standing; consent. In depth study of topics related to current issues in primary health care. Study may be independent or through specially scheduled seminars.

397. *Research*. I, II, S. 1-15 hr. PR: NSG 373; PR or Conc: NSG 378. Refinement and implementation of research proposal to meet requirements for a master's paper.

491. *Advanced Study*. I, II, S. 1-3 hr. PR: Consent. Post master's standing.

492. Directed Study, Reading, Practice, or Research.

497. *Research*. I, II, S. 1-15. PR: Consent. Post master's standing.

** The introductory health assessment requirement, which is a prerequisite for regular admission to the MSN program, must be completed before enrolling in NSG 375.

School of Pharmacy

Professional, and Graduate Courses

Pharmacy (PHAR)

200. *Introduction to Pharmaceutical Systems. I.* 4 hr. PR: First-year standing in pharmacy or consent. Pharmaceutical calculations, dosage forms, dispensing techniques, and an overview of pharmacy practice and career opportunities.

201. *Concepts in Pharmaceutics 1. I.* 3 hr. PR: First-year standing in pharmacy or consent. Concepts of a pharmaceutical systems with emphasis on the physicochemical principles in formulations and dosage forms, primarily solutions and their calculations.

202. *Concepts in Pharmaceutics 2. II.* 4 hr. PR: PHAR 201 or consent. Special dosage forms, quality control, drug analysis, design and manufacture of pharmaceutical formulations and their conformity with Food and Drug Administration (FDA) regulations, especially good manufacturing practices.

203. *Pharmacokinetics and Biopharmaceutics. I.* 4 hr. PR: PHAR 202 or consent. Fundamentals of biopharmaceutics/pharmacokinetics are presented. The kinetic, therapeutic, and dosage formulation-related aspects of drug absorption and disposition are discussed. Laboratories emphasize theoretical and practical problems in pharmacokinetics and bioavailability.

205. *Pharmaceutical Aspects of Pharmacy Practice. II.* 4 hr. PR: Second-year standing in pharmacy or consent. Development of professional competence in the practice of pharmacy. Scientific principles underlying extemporaneous prescription compounding are applied to prescription problems. Problems arising in the dispensing of precompounded pharmaceuticals are studied.

212. *Non-Prescription Drugs. II.* 3 hr. PR: Second-year standing in pharmacy. Basis for self-medication, the therapeutic rationale for nonprescription drugs, and ethical principles as they apply to nonprescription drugs and appliances.

213. *Industrial Pharmacy. I.* 3-4 hr. PR: PHAR 202. Major aspects and principles of dosage form development and manufacture. Structure of industry and government influences. Laboratory experience in manufacturing and development techniques.

216. *Hospital Pharmacy and Administration. I.* 3 hr. PR: Enrollment in the School of Pharmacy and consent. Basic concepts of the organization, management, and services of hospitals and pharmacist's role in the modern hospital. Emphasis on principles of hospital pharmacy administration and practice.

227. *The Pharmacist's Social Environment. I.* 2 hr. External factors which influence the practice of the pharmacist over which the pharmacist has little or no control, with emphasis on the psychosocial aspects and distributive systems.

228. *Pharmacy Practice and Legal Environment. II.* 3 hr. PR: Second year standing or consent. Legal and ethical considerations that influence the practice of the pharmacist.

229. *Managerial Aspects of Pharmacy Practice. I.* 3 hr. PR: PHAR 227 or consent. Emphasis on decision making, planning, organization, personnel, information systems, risk factors, and financial aspects.

230. *Professional Aspects of Pharmacy Practice*. II. 3 hr. PR: PHAR 229 or consent. Emphasis on patient communications, patient profiles and charges, and present and future role of pharmacist in the provision of pharmaceutical care.
232. *Social Aspects of Pharmacy*. II. 3 hr. Psychosocial aspects of pharmacists and patients in health care setting. Behavioral science factors which affect whether, why, or how medications and pharmaceutical services are used; role of pharmacist in health care.
233. *Current Developments in Pharmacy Practice*. II. 3 hr. PR: Third-professional-year standing, or second-professional-year by consent. Examines issues of current importance to contemporary pharmacy practice such as prepaid health insurance, peer standards review and organizations, degree and title granting, competency based relicensure and continuing education, and technicians' roles.
236. *Pharmaceutical Sales/Marketing*. I. 2 hr. PR: Third-year standing in pharmacy or consent. Introduction to the roles the pharmaceutical sales representative in pharmaceutical firms. The course includes sales training, selling techniques, interviewing techniques, personnel practices, and a day in the field.
241. *Fundamentals of Pathophysiology*. II. 4 hr. PR: First-year standing in pharmacy or consent. Student is introduced to various disease states with emphasis on the pathophysiology underlying those diseases amenable to drug therapy.
245. *Pharmacotherapeutics 1*. I. 3 hr. PR: Second-year standing in pharmacy or consent. The application of pharmacodynamic, pharmacokinetic, and pharmaceutical principles in the treatment, diagnosis, and prevention of disease states.
246. *Pharmacotherapeutics 2*. II. 3 hr. PR: PHAR 245 or consent. A continuation of PHAR 245.
247. *Clinical Pharmacokinetics*. 3 hr. PR: PHAR 203 or consent. The application of pharmacokinetic principles to the therapeutic management of disease states. Includes effects of altered physiological conditions and diseases on drug kinetics and dose individualization techniques for specific drugs. (3 hr. lec.)
249. *Drugs and Medicines*. I. 3 hr. (Not intended for pharmacy students.) PR: General biology or consent. A course intended to introduce the non-health professional student to information about drugs and pharmaceutical preparations to include their source, administration, action, use and abuse.
250. *Ambulatory Care Clerkship*. I, II, S. 4 hr. PR: Third-professional-year standing. A course giving extensive experience in the practice of pharmacy, emphasizing the pharmacist's relationship to ambulatory patients.
251. *Medical Team Clerkship*. I, II, S. 4 hr. PR: Third-professional-year standing. Students will participate on a health care team in an inpatient setting. Emphasis will be on pharmaceutical and medication counseling, role of drug therapies in patient care, patient drug histories, and practitioner-patient communications.
252. *Institutional Care Clerkship*. I, II, S. 4 hr. PR: Third-professional-year standing. Extensive experience will be gained in the practice of pharmacy in institutional centers (primarily hospitals) with emphasis on the pharmacist's relationship with hospitalized patients.

253. *Elective Clerkship*. I, II, S. 4 hr. PR: Third-professional-year standing. Students will elect to repeat a clerkship (PHAR 250, 251, 252). Emphasis will be on the further development of skills in the various practice areas of pharmacy.
255. *Introduction to Drug Literature*. II. 2 hr. PR: Second year pharmacy standing or consent. Reference sources available to meet the drug information needs of pharmacists and other health practitioners; methods for critically evaluating published clinical drug studies.
256. *Advanced Pharmacotherapeutics*. I. 3 hr. PR: PHAR 246 or equiv. The integration of pharmacological-therapeutic concepts in the study of treatment modalities and problems which may be encountered by the pharmacist in drug management of selected disease states.
265. *Chemical Abuse*. I. 1 hr. Problems of chemical abuse; the psychosocial, pharmacological, and physiological nature of chemical abuse; and ramifications of chemical abuse and impairment by the professional pharmacist.
266. *Principles of Clinical Pharmacy Practice*. II. 2 hr. PR: Second year pharmacy standing or consent. Introduction to principles of clinical pharmacy; discussion of selected diseases and their treatment in a case-study format.
270. *Fundamentals of Medicinal Chemistry 1*. II. 3 hr. PR: First-year standing in pharmacy or consent. A relationship of the chemistry, structure, and physicochemical properties of drugs to their pharmacodynamic effects. Major portion devoted to basic principles followed by discussion in pharmacological classes.
271. *Fundamentals of Medicinal Chemistry 2*. I. 3 hr. PR: PHAR 270. Continuation of PHAR 270.
276. *Pharmaceutical Quality Control*. II. 3 hr. PR: Second-year standing in pharmacy. Basic scientific principles in quality control of drugs and dosage forms, with particular attention to newer analytical techniques.
280. *Drugs, Nutrients, and Health*. II. 3 hr. The course is intended to provide the student with fundamental concepts and principles of nutrition science.
283. *History of Pharmacy*. I or II. 2 hr. Gives the student a deeper appreciation of the background of pharmacy and its development from ancient times to present.
287. *Seminar in Pharmaceutical Sciences*. I, II. 1-3 hr. PR: Consent. Presentation and discussion of special topics in pharmaceutical sciences.
289. *Pharmaceutical Investigations*. I, II, S. 1-3 hr. PR: Consent. Original investigation in pharmaceuticals, medicinal chemistry, pharmacology, pharmacy administration, or clinical pharmacy.
290. *Special Topics*. I, II. 2-4 hr.
298. *Clinical Pharmacy Specialties*. I, II, S. 3 hr. PR: PHAR 250, 251, 252, 253, and consent. Clinical pharmacy elective rotation on a selected medical specialty service. Rotations will be arranged upon approval by clinical pharmacy instructor and respective medical chiefs.

300. *Industrial Pharmacy*. I. 4 hr. Major aspects and principles of dosage form development and manufacture. Structure of industry and government influences. Laboratory experiences in manufacturing and development techniques.
301. *Advanced Biopharmaceutics*. I or II. (every other year) 3 hr. Concepts of biopharmaceutics and pharmacokinetics in relation to the design and evaluation of dosage forms and determination of rational dosage regimens in health and disease.
302. *Advanced Pharmaceutics*. I or II. 3 hr. Physicochemical and biopharmaceutical principles involved in disperse systems (liquid, semi-solid, and solid) which function as dosage forms. Considerations of properties of solid dispersions, micromeritics, diffusion of liquid dispersions, interfacial phenomena, emulsification, suspensions, prolonged action medication, etc.
323. *Economics of the Pharmaceutical Industry*. I or II. 3 hr. History, background, and formation of major drug industries. Oligopolistic practices, mergers, combines, costs of research, and production.
325. *Advanced Drug Information*. I. 2 hr. PR: First year standing in Pharm. D. program or consent. Overview of drug information provision and management; in-depth knowledge of evaluation techniques for drug information literature.
326. *Disease Processes and Clinical Therapeutics 1*. I, II. 7 hrs. PR: Admission to the Pharm. D. program or consent. Pharmacotherapeutics and therapeutic decision-making.
327. *Disease Processes and Clinical Therapeutics 2*. II. 7 hr. PR: Admission to the Pharm. D. program or consent. Pharmacotherapeutic decision making; a continuation of PHAR 326.
329. *Advanced Clinical Pharmacokinetics*. II. 3 hr. PR: Admission to the Pharm. D. program or consent. Emphasis on the interpretation and use of therapeutic drug concentrations in patient management.
330. *Drug Information Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; enhancement of knowledge and skill in drug information retrieval and dissemination and as pharmacotherapy consultants.
331. *Internal Medicine Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; emphasis on selection, utilization, and monitoring of drug therapy patient and health care practitioner interactions.
332. *Family Medicine Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship providing intensive experience in clinical pharmacy services to inpatients and ambulatory patients of a family practice center.
337. *Poison Information and Management Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in clinical toxicology; assessment and treatment of the poisoning victim.
339. *Adult Medicine Specialty Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship, emphasis on selection, utilization, and monitoring of drug therapy: patient and health care practitioner interactions.

340. *Pediatrics Clerkship*. I, II, S. 4 hr. Second year standing in Pharm. D. program or consent. Advanced clerkship in pediatrics with emphasis on appropriate selection, utilization and monitoring of drug therapy and patient and health care practitioner interaction.

341. *Behavioral Medicine/Psychiatry Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; emphasis on selection, utilization, and monitoring of drug therapy; patient and health care practitioner interactions.

342. *Geriatrics Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; emphasis on selection, utilization, and monitoring of drug therapy; patient and health care practitioner interactions.

343. *Hospital Pharmacy Administration Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship; emphasis on pharmaceutical care, its planning and implementation and legal and regulatory requirements.

344. *Preceptorship Clerkship*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship preceptor to undergraduate pharmacy students in a clinical rotation.

345. *Elective Clerkship 1*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.

346. *Elective Clerkship 2*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.

347. *Elective Clerkship 3*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.

348. *Elective Clerkship 4*. I, II, S. 4 hr. PR: Second year standing in Pharm. D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.

375. *Advanced Pharmaceutical Analysis*. I or II. 3 hr. Spectroscopic methods of analysis with emphasis on their applications in pharmaceutical problems and in biological sciences.

376. *Advanced Pharmaceutical Analysis*. I or II. 3 hr. Continuation of PHAR 375, with emphasis on electro-analytical methods and preparation of samples from pharmaceutical dosage forms and from biological materials.

390. *Special Topics*. I, II, S. 1-4 hr.

391. *Seminar in Pharmaceutical Sciences*. I, II. 1 hr. PR: Consent. A multidisciplinary weekly presentation and discussion of special topics and research in the pharmaceutical sciences. (Weekly attendance is required and grading is on an S/U basis only.)

396. *Special Problems in Pharmaceutical Sciences*. I, II, S. 1-3 hr. Where special interest is shown by the student in an area other than of the student's thesis research, a faculty member will supervise individual study and research.

491. *Advanced Study*. I, II, S. 1-6 hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

494. *Special Seminars*. I, II. 1-6 hr.

496. *Graduate Seminar*. I, II. 1 hr. PR: Consent. Formal presentation by graduate students to assembled graduate faculty and students of research or special topics approved by adviser. Title to be presented at start of semester. Required at least once annually. (Grading is S/U.)

497. *Research*. I, II. 1-15 hr.

498. *Thesis*. I, II, S. 2-4 hr. PR: Consent.

Health Sciences Center

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Ann Chester, Ph.D., Assistant Vice President
John T. Coughlin, Director of Communications.
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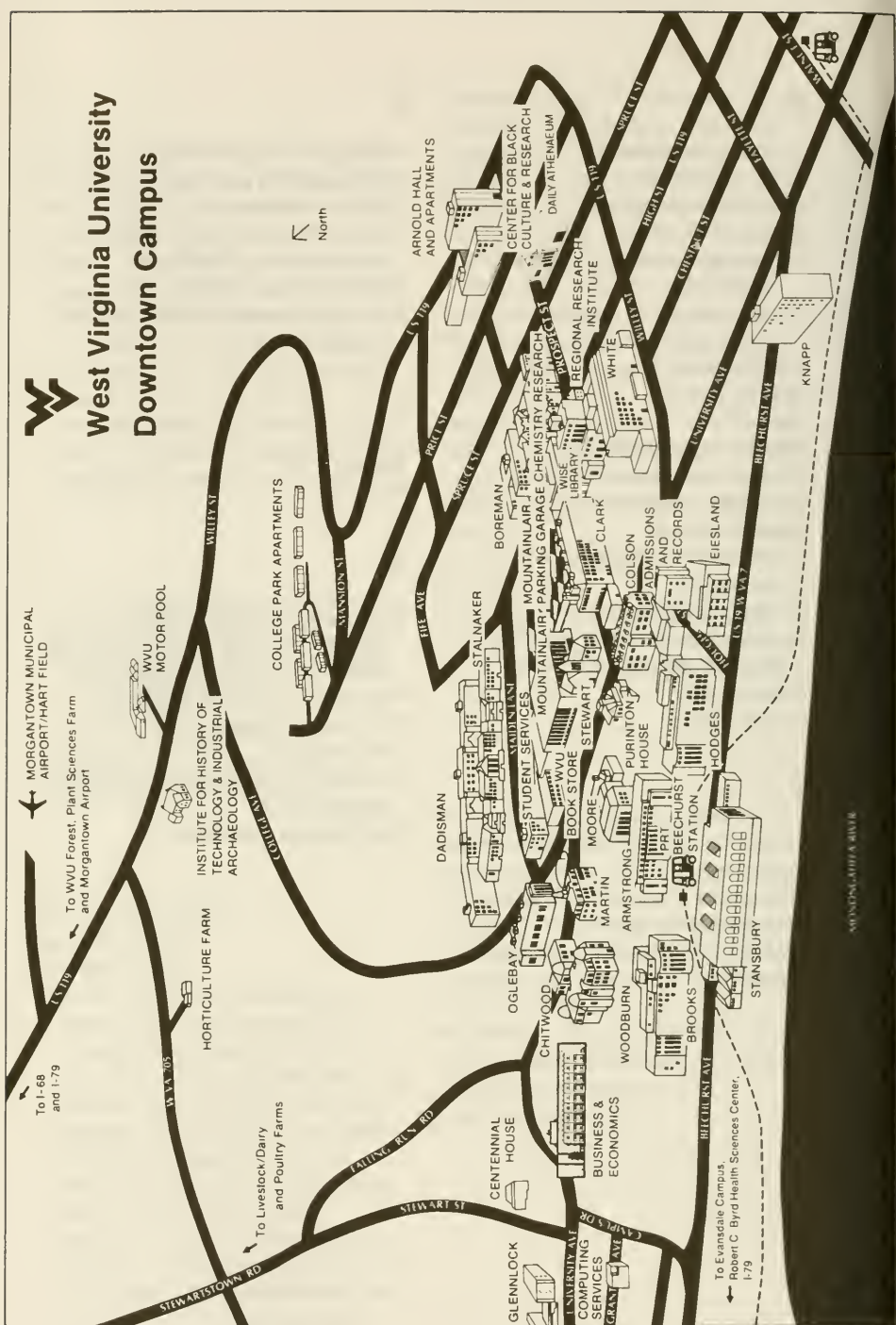
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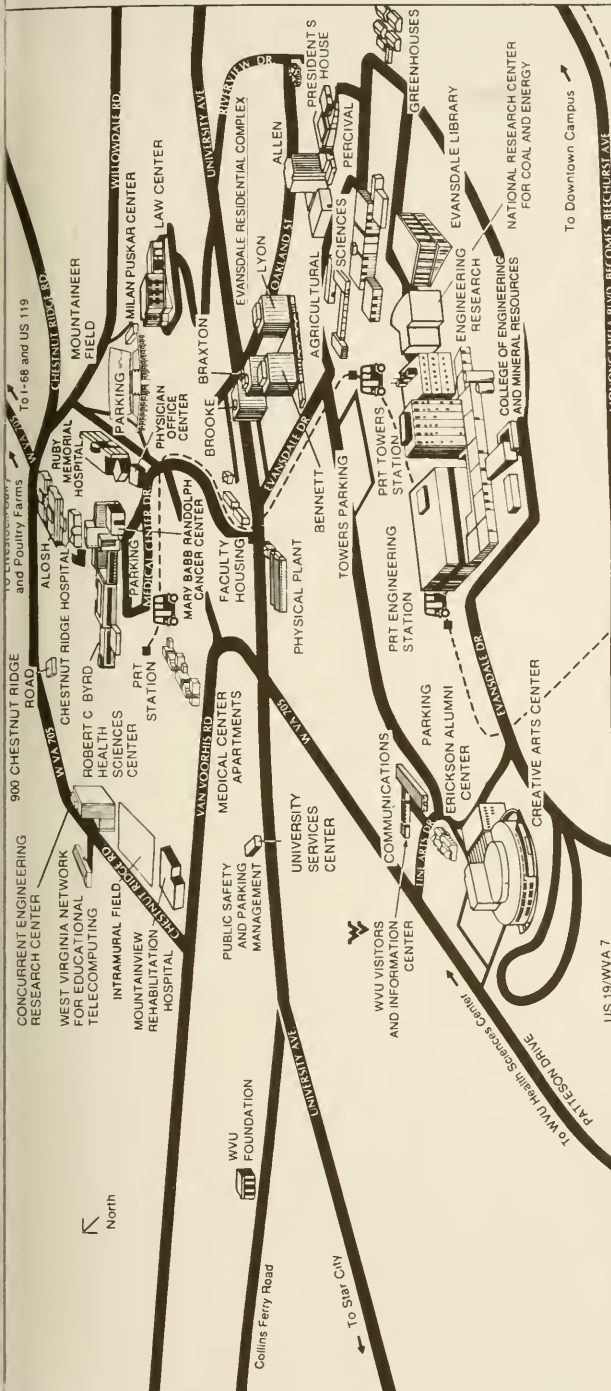
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Health Sciences Center of West Virginia University

1999-2001 Catalog

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West Virginia University Calendar 1999-2000

First Semester

Wednesday, Thursday, Friday, August 18, 19, 20	New student orientation
Friday, August 20	General registration
Monday, August 23	First day of classes
Monday, August 23	Late registration fee in effect for all students
Friday, August 27	Last day to register, add new courses, make section changes, change pass/fail and audit
Monday, September 6	Labor Day recess
Saturday, September 11	Rosh Hashannah (day of special concern)
Monday, September 20	Yom Kippur (day of special concern)
Friday, October 8	Mid-semester
Tuesday, October 12	Mid-semester reports due
Friday, October 29	Last day to drop a class
Saturday, November 20 through Sunday, November 28	Thanksgiving recess
Thursday, December 9	Last day to withdraw from University
Friday, December 10	Last day of classes
Friday, December 10	December convocation
Monday, December 13 through Saturday, December 18	Final examination week
Sunday, December 19 through Tuesday, January 4	Christmas recess
Wednesday, December 29	Degree conferring date (No ceremonies)

Second Semester

Wednesday, Thursday, Friday, January 5, 6, 7	New student orientation
Friday, January 7	General registration
Monday, January 10	First day of classes
Monday, January 10	Late registration fee in effect for all students
Friday, January 14	Last day to register, add new courses, make section changes, change pass/fail and audit
Monday, January 17	Martin Luther King's birthday recess
Monday, February 7 (Not a holiday.)	West Virginia University Day
Friday, February 25	Mid-semester
Tuesday, February 29	Mid-semester reports due
Friday, March 17	Last day to drop a class
Saturday, March 25 through Sunday, April 2	Spring recess
Thursday, April 20	Passover (day of special concern)
Friday, April 21	Easter recess
Thursday, April 27	Last day to withdraw from university
Friday, April 28	Last day of classes
Monday, May 1 through Saturday, May 6	Final examination week
Monday, May 8	Grade reports for all graduates due in dean's office
Tuesday, May 9	Election Day recess
Wednesday, May 10	Dean's reports on graduates due in ARC
Saturday, May 13	Alumni day
Sunday, May 14	Commencement

Summer Session I

Tuesday, May 23	Registration
Tuesday, May 23	First day of classes
Wednesday, May 24	Late registration fee in effect for first six-week session for all students
Friday, May 26	Last day to register for first six-week session and last day to add courses or make section changes in second six-week session
Monday, May 29	Memorial Day recess
Friday, June 16	Last day to drop a class for first six-week session
Thursday, June 29	Last day to withdraw for first six-week session
Friday, June 30	Last day of classes for first six-week session
Friday, June 30	Final exam for first six-week session

Summer Session II

Monday, July 3	Registration
Monday, July 3	First day of classes
Tuesday, July	Independence day recess
Wednesday, July 5	Late registration fee in effect for second six-week session for all students
Friday, July 7	Last day to register for second six-week session and last day to add courses or make section changes in second six-week session
Friday, July 28	Last day to drop a class for second six-week session
Wednesday, August 9	Last day to withdraw for second six-week session
Thursday, August 10	Last day of classes for second six-week session
Thursday, August 10	Final exam for second six-week session
Friday, August 18	Degree conferring date (No ceremonies)

West Virginia University Calendar 2000-2001

First Semester

Wednesday, Thursday, Friday, August 16, 17, 18	New student orientation
Friday, August 18	General registration
Monday, August 21	First day of classes
Monday, August 21	Late registration fee in effect for all students
Friday, August 25	Last day to register, add new courses, make section changes, change pass/fail and audit
Monday, September 4	Labor Day recess
Saturday, September 30	Rosh Hashannah (day of special concern)
Friday, October 6	Mid-semester
Sunday, October 8	Yom Kippur (day of special concern)
Tuesday, October 10	Mid-semester reports due
Friday, October 27	Last day to drop a class
Tuesday, November 7	Election Day recess
Saturday, November 18 through Sunday, November 26	Thanksgiving recess
Thursday, December 7	Last day to withdraw from university
Friday, December 8	Last day of classes
Friday, December 8	December convocation
Monday, December 11 thru Saturday, December 16	Final examination week
Sunday, December 17 thru Tuesday, January 2	Christmas recess
Friday, December 29	Degree conferring date (no ceremonies)

Second Semester

Wednesday, Thursday, Friday, January 3, 4, 5	New student orientation
Friday, January 5	General registration
Monday, January 8	First day of classes
Monday, January 8	Late registration fee in effect for all students
Friday, January 12	Last day to register, add new courses, make section changes, change pass/fail and audit
Monday, January 15	Martin Luther King's birthday recess
Wednesday, February 7 (Not a holiday)	West Virginia University Day
Friday, February 23	Mid-semester
Tuesday, February 27	Mid-semester reports due
Friday, March 16	Last day to drop a class
Saturday, March 24 through Sunday, April 1	Spring recess
Sunday, April 8	Passover (day of special concern)
Friday, April 13	Easter recess
Thursday, April 26	Last day to withdraw from university
Friday, April 27	Last day of classes
Monday, April 30 through Saturday, May 5	Final examination week
Monday, May 7	Grade reports for all graduates due in dean's office
Tuesday, May 8	Dean's reports on graduates due in ARC
Saturday, May 12	Alumni Day
Sunday, May 13	Commencement

Summer Session I

Tuesday, May 22	Registration
Tuesday, May 22	First day of classes
Wednesday, May 23	Late registration fee in effect for first six-week session for all students
Friday, May 25	Last day to register for first six-week session and last day to add courses or make section changes in second six-week session
Monday, May 28	Memorial Day recess
Friday, June 15	Last day to drop a class for first six-week session
Thursday, June 28	Last day to withdraw for first six-week session
Friday, June 29	Last day of classes for first six-week session
Friday, June 29	Final exam for first six-week session

Summer Session II

Monday, July 2	Registration
Monday, July 2	First day of classes
Tuesday, July 3	Late registration fee in effect for second six-week session for all students
Wednesday, July 4	Independence Day recess
Friday, July 6	Last day to register for second six-week session and last day to add courses or make section changes in second six-week session
Friday, July 27	Last day to drop a class for second six-week session
Wednesday, August 8	Last day to withdraw for second six-week session
Thursday, August 9	Last day of classes for second six-week session
Thursday, August 9	Final exam for second six-week session
Friday, August 17	Degree conferring date (No ceremonies)

Robert C. Byrd Health Sciences Center of West Virginia University

West Virginia University's Schools of Dentistry, Medicine, Nursing, and Pharmacy at the Health Sciences Center offer a comprehensive range of undergraduate, graduate, and professional degrees in health care and biosciences. The 28 degree programs offered by the Health Sciences Center provide West Virginia with a strong group of professionals prepared to meet the varied health care needs of the state. The more than 10,000 alumni of WVU Health Sciences Center programs include about one-third of the state's practicing physicians, two-thirds of its dentists, three-quarters of its pharmacists, and hundreds of nurses, medical and dental technologists, physical therapists, and other health professionals.

A unique combination of state and federal support, charitable contributions from individuals and foundations, and investments by private corporations has allowed the Health Sciences Center to build an unequalled environment for health education. The Health Sciences Center includes three hospitals, a cancer center, and a medical and dental office building. All were built since 1986 and were designed to meet the needs of patient care, education, and clinical research. The WVU Health Sciences Center also includes medical divisions in Charleston and Wheeling and relationships with hospitals and physicians in rural areas of the state. These facilities offer students the opportunity to learn their profession in a setting that realistically reflects the conditions they will encounter after graduation.

Clinical Education Facilities

The West Virginia University Health Sciences Center includes a diverse group of health care facilities, providing a training ground for patient care and research for students in the health professions. West Virginia University Hospitals, the Physician Office Center, the Mary Babb Randolph Cancer Center, Chestnut Ridge Psychiatric Hospital, Southview Regional Rehabilitation Hospital, and the National Institute of Occupational Safety and Health (NIOSH) are modern facilities that advance medical research and accommodate the demands of contemporary medical, dental, nursing, and pharmacy care.

WVU Hospitals entered a new era in 1988 with the opening of a 376-bed tertiary teaching facility—Ruby Memorial, the primary teaching hospital for the Health Sciences Center. It is equipped and staffed to provide the most comprehensive and advanced care available in West Virginia, thus making it a superb clinical education site for students. Ruby also houses the Jon Michael Moore Trauma Center and WVU Children's Hospital with their specialized care units.

The Physician Office Center, the Health Sciences Center's outpatient facility for education and patient care, accommodates the largest multi-specialty group practice in West Virginia, with 60 primary and specialty care areas. Dental facilities, the Eye Center, and the Outpatient Pharmacy are integral parts of the Physician Office Center.

Chestnut Ridge Hospital is a 70-bed psychiatric hospital on the Health Sciences Center campus. It is staffed clinically by faculty from the School of Medicine and is the focal point of education in the behavioral and psychiatric sciences.

Southview Regional Rehabilitation Hospital provides unique educational opportunities for students in neurological disease, trauma rehabilitation, and physical and occupational therapy. Many WVU students experience part of their clinical training at the Charleston Division of the Health Sciences Center, which is affiliated with Charleston Area Medical Center. In addition, WVU students train at off-campus sites where they learn the demands of rural health care firsthand.

The School of Dentistry dental clinic accepts patients who have dental problems of teaching value. Faculty members closely supervise those students assigned to clinic patients. The students get invaluable experience through work at the clinic, and several thousand patients receive a much needed service.

University Health Service

When you enroll at the University, one of the charges you pay is the health service fee. This fee allows you to use the primary medical care provided by the University Health Service. The service, located on the ground floor of Health Sciences South, includes medical consultation and treatment. To use the service, you must present your current student ID and pay a co-payment.

If you require more specialized care, the Health Service may refer you to an outpatient clinic at the Physician Office Center. In this case, you are responsible for registration fees, doctor's fees, x-ray or lab fees, etc. The University Health Service publishes a brochure that details the services included in the health service fee and outlines services that are not provided.

The emergency department is available to you when the University Health Service is closed. However, all costs incurred at the emergency department are your responsibility. Since most insurance policies cover emergency department costs only when a true emergency exists, we advise you to use this service responsibly and maturely. An insurance plan is available to you to cover inpatient and outpatient services beyond the primary care covered by the health fee. We urge you to purchase this or a similar coverage as all students of the Health Sciences Center *must* have health insurance.

Library

The Health Sciences Library has a collection of more than 205,000 volumes and extensive holdings of audiovisual materials. It currently receives more than 2400 journals. The library primarily serves the Schools of dentistry, medicine, nursing, and pharmacy, graduate students in the basic sciences, and the West Virginia University Hospital System. It also supports the biomedical information needs of the University and of health professionals across the state. As West Virginia's resource library in the National Library of Medicine's regional medical library network, the Health Sciences Library operates an efficient interlibrary loan service for University staff and students and for West Virginia's hospitals and clinicians. Other services include on-line searches of data bases available through the National Library of Medicine, Bibliographical Retrieval Services, Chemical Abstracts Services, OCLC, and Wilsonline. Also available are computer facilities permitting students, faculty, and staff to perform their own computer searches. A computerized West Virginia union list of periodicals is maintained, and installation of an integrated library system should soon be under way. The library is open 98 hours a week for most of the year; regular hours and variations are posted at the entrance.

Health Sciences Programs

Degree Program	Bachelor	Master	Doctoral/ Professional
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School of Dentistry

Dental Hygiene	B.S.	M.S.	
Dentistry			D.D.S.
Dental Specialties		M.S.	

School of Medicine

Anatomy		M.S.	Ph.D.
Biochemistry (Medical)		M.S.	Ph.D.
Community Health Promotion		M.S.	
Exercise Physiology	B.S.	M.S.	
Medical Technology	B.S.	M.S.	
Medicine			M.D.
Microbiology and Immunology		M.S.	Ph.D.
Occupational Therapy		M.S.	
Pharmacology and Toxicology		M.S.	Ph.D.
Physical Therapy		M.S.	
Physiology (Medical)		M.S.	Ph.D.
Public Health		M.P.H.	

School of Nursing

Nursing	B.S.N.	M.S.N.	
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School of Pharmacy

Pharmaceutical Sciences		M.S.	Ph.D.
Pharmacy			Pharm.D.

Undergraduate and Professional Programs

Commitment to Social Justice

West Virginia University's role as the doctoral degree-granting, research, land-grant university in the state of West Virginia gives the institution a special responsibility as a leader in the area of social justice. The pursuit of truth underlying the University's mission focuses attention on issues of diversity, power, and perspective, so that students, faculty, and staff may study and work in a climate of academic freedom and social responsibility, developing the skills, knowledge, and self-esteem necessary for participation as world citizens.

Equal opportunity is a fundamental goal in a democratic society, and WVU shares the responsibility for achieving that equity. The institution is committed, therefore, to ensuring that all persons, including women; people of color; people with disabilities; gays, lesbians, and bisexuals; veterans; and people of different religions, ages, and international, ethnic, and economic backgrounds benefit from the many opportunities the institution provides.

In keeping with this responsibility, the members of the academic community are expected to demonstrate mutual respect, understanding, and appreciation for all persons; to express that perspective in every dimension of the institution's life and mission; and to work cooperatively, representing not only the interests of their own groups but also those of the wider community.

The importance of West Virginia University's social justice program goes beyond the benefits that accrue to any one person or group, to the strengthening of the University itself, and the enhancing of its ability to accomplish the mission with which it has been entrusted by the people of West Virginia.

Admission

To apply for admission to the various schools of the Health Sciences Center, write to Admissions and Records, 1170 Health Sciences North, P.O. Box 9815, Morgantown, WV 26506-9815, and ask for the appropriate application forms.

Space at the HSC is limited, and our applications are numerous. Therefore, we give preference in the admissions process to qualified residents of West Virginia. However, we always consider outstanding nonresident applications. We give most careful consideration to those personal qualifications that reflect your fitness for the study and practice of your chosen profession.

Because we are primarily a group of professional schools and most of our applicants are enrolled in undergraduate studies at a residential college or university, we remind you to include your permanent home address with your request for an application form.

Specific entrance requirements for all Health Sciences programs are detailed in the section pertaining to each program. For information about freshman, transfer, and international admission to West Virginia University, please refer to the *WVU Undergraduate Catalog*.

Note: During the first semester of your first year at WVU Health Sciences Center, we require that you complete certain prescribed immunization and diagnostic procedures.

Application Fees

Application fees for the Schools of Dentistry and of Medicine are \$45.00. The Pharm.D. application fee is \$30.00. Applications fees for all other Health Sciences Center programs are \$10.00. Application fees must accompany your application form.

When you are accepted into one of our programs you are asked to deposit \$100.00 to make your acceptance official. These deposits are applied toward your first semester tuition when you enroll.

If you pay your deposit but do not enroll, a written request for refund must be postmarked by June 1st for fall admission and December 1st for spring admission.

Academic Advising

When you enter West Virginia University, you are assigned an academic advisor. Your advisor assists you as you prepare your schedule, assigns classes as required by your degree program, and certifies your study list to the director of admissions and records. Your advisor is also expected to give you advice and sympathetic guidance. You are expected to meet with your advisor to discuss your academic problems.

Students interested in medical technology, nursing, pharmacy, physical therapy, or occupational therapy may be admitted to a preprogram in order to complete entrance requirements for admission to the degree program. If you select one of these pre-programs, you are advised through the University Services Center. You must apply for admission with an undergraduate application.

Second or Multiple Bachelor's Degree

To earn a second baccalaureate degree, you must earn at least 30 credits beyond the requirements for your first degree. You must satisfy all requirements, departmental or otherwise, for the second degree. You cannot receive a second bachelor's degree if you have not met the University's residence requirement. (See "Residence Requirements.")

If you wish to earn two baccalaureate degrees at the same graduation date, then you must satisfactorily complete a minimum of 158 credits and meet all requirements, departmental and otherwise, of both degree programs. You must be admitted to both programs. Furthermore, you must provide the Office of Admissions and Records written proof that you have the approval of both colleges and schools.

Undergraduate Policies

Academic Forgiveness Policy

WVU allows an academic forgiveness to some students who are not successful in their first attempt at higher education.

To be eligible, a student cannot have been enrolled at a West Virginia State System of Higher Education for at least five calendar years and has not been enrolled in any other institution of higher learning during those five years. In order to determine your eligibility, you must complete the Academic Forgiveness Form which is available at the Office of Admissions and Records.

The conditions and rules of the academic forgiveness policy are as follows:

- a. Admission to WVU under the academic forgiveness policy is conditional upon satisfying the above stated non-enrollment period. In addition, a recommendation that the student be admitted under the academic forgiveness policy must be submitted by the dean of the college or school that the student plans to enter, and the recommendation must be approved by the Office of the Vice President for Academic Affairs.
- b. Upon admission to WVU under this policy, the student will be credited with the hours earned for courses completed with a grade of D or higher.
- c. Grades earned during any prior enrollment period will not be counted for purposes of calculating the student's grade-point average, but grades earned will remain on the student's permanent record.
- d. The student must complete all course work required to meet the college's or school's requirements for graduation, but under no circumstances after the student has been admitted under the academic forgiveness policy shall the student complete fewer than 64 credit hours prior to earning a degree.
- e. A student admitted to WVU under this policy will follow all regulations regarding probation, suspension, and expulsion.

Baccalaureate Degrees

Student Responsibility

As a student, you are responsible for your academic well-being. Specifically, you are responsible for knowing your scholastic standing as it relates to the published regulations and standards of West Virginia University. This responsibility includes the regulations of your college or school and the regulations of the department or division in which you are earning a degree.

Regulations Affecting Degrees

All degrees are conferred by the University of West Virginia System Board of Trustees as recommended by the faculty of the various colleges and schools. A degree is granted at the end of the semester or summer session in which you complete the requirements for that degree, provided that you have submitted an application for graduation and diploma at your academic dean's office.

You become eligible to graduate when you complete the requirements of the University and your college or school in effect at the time you first registered at that college or school. You have seven years after your first registration to complete the requirements. If you do not, you will have to meet the requirements of a later catalog—one that is no more than seven years old when you complete your studies. With the consent of your advisor and your dean, you may choose to meet the conditions published in a later catalog.

Students must observe any program changes enacted by the University of West Virginia System Board of Trustees or local, state, or federal law.

West Virginia University policy dictates that, in view of their professional responsibilities to the general public, the faculty of a professional school may recommend to the president of the University, in writing, that a student be removed from its rolls. The recommendation of the faculty must indicate that the student is not fit to meet the qualifications and responsibilities of the profession.

WVU will not confer a degree nor issue a transcript to any student until all tuition, fees, and other indebtedness to any unit of the University is paid.

Credits Required

Each degree program is based upon a combination of required courses and electives. Certain University requirements are listed below. In addition, the various colleges and schools determine their own credit requirements and course grade-point averages for graduation. Total credits vary from 128 to 145. Required grade averages range from 2.0 to 2.5. The determination to count ROTC courses as free electives or toward fulfillment of Liberal Studies Program requirements is the prerogative of the dean of the college awarding the degree. No more than three credit hours of ROTC may count toward fulfillment of the LSP requirement in each cluster area.

Liberal Studies Program (LSP)

WVU recognizes the need for students to have a wide range of knowledge and experience to complement their chosen field of study. The LSP serves this purpose and is based on the following two principles.

1. In our world of rapid economic, social, and technological change, universities recognize that a broad educational foundation is necessary for the life-long learning that makes meaningful careers and other goals attainable. WVU's approach to this foundation is its Liberal Studies Program, which provides baccalaureate graduates with the skills and knowledge to continue their intellectual growth as a life-long process. These skills and knowledge include the ability to:
 - Reason clearly.
 - Communicate effectively.
 - Understand major influences in society.
2. General education helps students to become thoughtful participants in a democratic society and to achieve the intellectual integration and awareness they need to meet changes and challenges in their personal, social, political, and professional lives. General education courses introduce the great ideas and controversies in human thought and experience. These courses provide breadth, perspective, and rigor that enable WVU graduates to:
 - Understand the past and its traditions.
 - Identify and resolve issues of personal and professional ethics.
 - Contribute in meaningful ways to their local, national, and global communities.
 - Understand alternative viewpoints and cultures.
 - Accept and assume responsibility for themselves and their world.
 - Interact constructively with people different from themselves.
 - Understand important issues confronting society.
 - Gain a critical understanding of the arts, sciences, and humanities.
 - Understand an increasingly interdependent world.
 - Use quantitative and scientific knowledge and technology accurately.

Program Components

WVU Liberal Studies Program requirements for all students who receive the baccalaureate degree are divided into a skills component and a distribution component.

Skills Component

Writing:

- All students must successfully complete English 1 and 2. This requirement is in addition to the Cluster A requirements described below.
- All students must successfully complete at least one course that requires a substantial writing component and in which the grade is partially determined by writing skills. These courses will be identified in the LSP portion of the *Schedule of Courses* by a "W". The student must complete English 2 before fulfilling the "W" requirement.

Mathematics:

- All students must successfully complete at least three hours of mathematics or statistics. This requirement is in addition to the Cluster C requirement that is described below. Courses approved for the mathematics skills requirement: Mathematics 3, 4, 11, 14, 15, 16, 23, 28, 128, 131, and 168; Economics 125 and Statistics 101.

Distribution Component

The University courses in the LSP that provide students with broad liberal knowledge and experience are grouped into three Clusters:

Cluster A (Humanities and Fine Arts): The study of humanities develops knowledge of and appreciation for the accumulated wisdom and experience contained in world literature, history, fine arts, religion, and philosophy, with the objective of bringing the student to an active consciousness of the living, operating, and continuing values of human culture.

Cluster B (Social and Behavioral Sciences): The social and behavioral sciences develop in students the knowledge and appreciation of both themselves and the world in which they live. Through the study of anthropology, communication studies, economics, geography, linguistics, political science, psychology, and sociology, students are able to comprehend major concepts, evaluate movements and ideas, and anticipate future trends in societies both at home and abroad.

Cluster C (Natural Sciences and Mathematics): Courses in natural sciences and mathematics provide information about the natural world, and provide a perspective on how an understanding of the natural world is developed. Educated persons should have a knowledge of the physical, chemical, geological, and biological entities and processes that constitute the natural world. Courses in mathematics, statistics, and computer science can provide the technical tools for an understanding of the natural world, as well as an understanding of the methods and value of mathematics considered as a discipline in itself.

Distribution of Cluster Requirements

Cluster A Requirements: 12 hours of Cluster A courses must be distributed according to the following provisions and successfully completed:

- Courses must be successfully completed in three disciplines.
- Two courses must be successfully completed in the same discipline.
- If foreign language courses are chosen to fulfill Cluster A requirements, no student may use more than one first semester course of an elementary foreign language. Language courses in a student's native language may not be used to fulfill Cluster A requirements.
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster A requirements.

Cluster B Requirements: 12 hours of Cluster B courses must be successfully completed and distributed according to the following provisions:

- Courses must be successfully completed in three disciplines.
- Two courses must be successfully completed in the same discipline.
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster B requirements.

Cluster C Requirements: 11-12 hours of Cluster C courses must be successfully completed and distributed according to the following provisions:

- Courses must be successfully completed in two disciplines.
- At least one course must include a laboratory (identified in the *Schedule of Courses*).
- No more than one multidisciplinary studies (MDS) course may be used to fulfill Cluster C requirements.

Foreign or minority culture requirements: One three-credit-hour course must focus substantially on the study of a foreign or minority culture or cultures or on women and/or issues of gender.

Inventory of LSP Courses

The courses listed below in Clusters A, B, and C do not constitute an inclusive listing. The Liberal Studies Committee will be changing the list of courses as evaluations are continually made of courses submitted to the LSP Committee for its approval. Students and advisors should consult the latest *Schedule of Courses* for the most recent inventory of courses included in the Liberal Studies Program. Any course listed at any time during the student's period of study may be counted for Liberal Studies Program credit.

Cluster A Courses:

Arabic 1, 2, 3, 4.
Art 30, 105, 106.
Chinese 1, 2, 3, 4.
Classics 1, 2, 3, 4, 101, 102.
Communication Studies 21, 187.
English 21, 22, 24, 25, 30, 35, 36, 40, *80, *85, 125, 130, 131, 132, 133, 134, 141, 143, 150, 170, 171, 172, 175, 178, 180, 181, *186, *188.
Foreign Literature in Translation *13, *14, *15, *16, *17, *18, *111, *112, *121, *122, *131, *132, *141, *142, *151, *152, *161, *162, *166, *171, *181, *182, *188, *189.
French 1, 2, 3, 4, 10, 11.
German 1, 2, 3, 4, 10, 11.
History 1, 2, *5, *6, 11, 12, 52, 53, *80, 100, 101, 103, 105, 107, 109, *117, *118, 119, 120, *121, 122, 155, 156, 157, 159, 161, *164, 177.
Humanities 1, 2, 3, 4, *5, 10, 11, *20.
Italian 1, 2, 3, 4.
Japanese 1, 2, 3, 4.
Landscape Architecture 112.
Linguistics 3.
Mathematics 161, (Equiv. to Philosophy 106).
Multidisciplinary Studies *40, 91, 99, *100.
Music 30, 33, 34, *129, 136, 137, *138.
Philosophy 2, 3, 5, 10, 13, 15, 17, 20, 23, 103, 104, 105, 106, 108, 111, *113, 120, 121, *122, 123, *125, 150, 158, 159, 166, 171, 172, 187.
Portuguese 1, 2, 3, 4.
Religious Studies 5, 100, 101, 102, 103, 105, 110, 111, 112, 120, 121, 128, *130, *131, *132, 141, *142, 150.
Russian 1, 2, 3, 4.
Spanish 1, 2, 3, 4, 10, 11.
Theatre 30, 50, 74.
Women's Studies *40.

Cluster B Courses:

Agricultural Education 162.
Child Development and Family Studies 10.
Communication Studies 11, 12, 14, 80, 106, 109, *134, *135, 140, 180.
Economics 51, 54, 55.
Forestry 140.
Geography 1, *2, 8, 105, 109, 110, 140, 141, *143, *144, 145.
History *4, *141, *142, *164.
Journalism 1.
Linguistics 1.
Mineral and Energy Resources 97.
Multidisciplinary Studies 2, *40, 50, *60, 70, 90, 92, 99, *100.
Political Science 1, 2, 3, 7, 78, 110, 120, *137, *150, *151, 160, 170, 171.
Psychology 1, 141, 151, *170.
Recreation and Parks 43.
Resource Management 1.
Social Work *47.
Sociology and Anthropology 1, *5, 7, *51, 121, 122, 123, 125, 131, 132, *135, 136, 137, *138, 140, 152, *155, *156, 157, 158, 159, *160, 162.
Sport Studies 72.
Technology Education 181.
Women's Studies *40, *145.

Cluster C Courses:

Astronomy 106.
Biology 1, 2, †3, †4.
Chemistry †11, †12, †15, †16, †17, †18.
Computer Science 5.
Economics 125.
Environmental Microbiology 141.
Geography 7, 107.
Geology 1, †2, 3, †4, †6, 7.
Human Nutrition and Foods 71.
Mathematics 3, 4, 11, 14, 15, 16, 23, 28, 128, 131, 168.
Multidisciplinary Studies 2, *60, 70, 90, 91.
Philosophy 11.
Physical Science †11, †12
Physics †1, †2, 7, 8, †11.
Statistics 101.

*Satisfies the foreign culture, minority, or gender studies requirement.

†Satisfies the laboratory course requirement.

Approved 200-Level Courses

No 200-level courses are included in Clusters A, B, and C because they are deemed to be not ordinarily appropriate for the Liberal Studies Program. However, a student may receive approval from his/her advisor to take a 200-level course from the list of approved courses indicated below, in fulfillment of the LSP requirement for each of the three cluster areas. The student must petition through his/her advisor for approval. This can be done with a standard petition form filled out by the student, approved by the advisor, and placed in the student's file.

Cluster A Courses:

Communication Studies 230.

English 211, 220, 235, 236, 240, 250, 255, 256, 261-268, *288.

Geography 212.

History 200, 204, 205, 206, 207, 208, 214, *225, *226, 231, 232, *245, *246, *251, *252, 253, 259.

Cluster B Courses:

Communication Studies 221.

Community Health Promotions *290.

Economics 211.

Health Education *290.

History 208, 211, *227, *229, *230, 259.

Political Science *235, *250, *251, *254, *255, *256, *258.

Social Work *247.

Technology Education *245.

*Satisfies the foreign culture, minority, or gender studies requirement.

Residence Requirements

If you decide to transfer to WVU from another institution of higher learning, then you should transfer no later than the start of your third year. Under no circumstances will a student who enters WVU after October 1 in any year be allowed to receive a degree at the next commencement.

In some special cases, you can leave WVU at the end of your third year, and still receive your degree from WVU. You must enter another accredited institution with the purpose of taking a combined program that will lead to two degrees or prepare for graduate study. Before you leave, you must apply to the academic standards committee of your college to request permission to do the work of the fourth year, or a part thereof, at the other institution but still receive the degree from WVU. You will receive your degree when you present the proper records from the other school.

If you are a transfer student who has completed all of your undergraduate work in another school in the West Virginia system of higher education, then you must complete either your last 30 hours of work at WVU or at least 36 hours of work at WVU of which 16 of the last 32 hours must be on campus. If you are a transfer student whose undergraduate work has been completed outside the West Virginia system of higher education, then you must complete a total of 90 hours or at least the last 30 hours of work in residence at WVU. You may be required to earn up to 15 hours in your major field regardless of the number of hours or the nature of the courses transferred.

Work Done Out of Residence

It is WVU's policy to discourage taking regular residence courses in absentia. If you begin a course at WVU but fail to complete it due to illness or some other acceptable reason, you may receive permission to complete the work in absentia. The permission must be granted by the Academic Standards Committee of the college or school concerned, and the work must be done under the guidance of a WVU professor. Credit for the course in such cases is allowed only upon a report of a grade of C or better on the final examination. This regulation does not apply to WVU off-campus courses.

If you fail a course (receive a final grade of F) taken at WVU, you must repeat the course at WVU to receive credit for that course. The dean of the college or school in which you are enrolled may authorize an exception to this regulation. If so, then the dean should provide a letter to be placed in your folder authorizing the exception and explaining its basis.

You should be aware of the requirements for residence and your specific degree requirements described in the catalog when transferring credit from other institutions. If you are transferring credit from institutions outside the West Virginia state system of higher education, WVU will accept credit only for **courses** in which you earned a grade of D or higher provided other conditions above have been met. Under no circumstances will **grades** be transferred from institutions outside the state system.

WVU Transient Students

If you decide to take a course or courses at another school, you must have written approval from your advisor, your dean, and the director of admissions and records or his designee. To receive such approval, you must have an overall 2.0 average. All approved college-level work is accepted for transfer from accredited institutions, provided the above requirements have been met and you have an overall grade-point average of 2.0. If you have less than a 2.0 average, you can transfer courses after you obtain an overall 2.0 at WVU. Only courses with grades of C or higher are accepted from institutions not in the state system. All grades are transferrable from the schools in the state system.

If you fail a course at WVU, you may not repeat this course at another institution and transfer the credit to WVU unless you have the approval of the dean of the college or school in which you are enrolled.

Substitution for Required Courses

You may want to substitute one course for another that is in your curriculum or may be required for your degree. In order to do this, you must get written permission from the academic standards committee of your college or school.

Credit Examinations

Advanced Placement Program (AP)

West Virginia University encourages you to work to your full capacity and to earn your degree at your own learning speed. As a high school junior or senior, you can enter the University early or you can take college-level courses at your school in conjunction with the College Entrance Examination Board (CEEB). The Advanced Placement Service administers three-hour examinations to show competence equal to that received by taking the actual college course. The chart on page 19 shows the subject areas, the necessary test scores, and the WVU equivalent courses.

Advanced Placement Program

Examination	Minimum Score	Credit Hours	Course Equivalent
ART (Studio)			
Drawing Portfolio	To be determined by Division of Art		
General Portfolio	To be determined by Division of Art		
ART HISTORY	3	3	ART 30
BIOLOGY	3	8	BIOL 1, 2, 3, 4
	4	4	BIOL 15
CHEMISTRY	3	8	CHEM 15-16
CLASSICS			
Latin: Virgil	3	3	CLAS 191 A
Latin: Catullus-Horace	3	3	CLAS 191 B
COMPUTER SCIENCE			
Computer Science A	3	3	non-specific C S
Computer Science AB	3	6	non-specific C S
(6 units maximum for both tests)			
ECONOMICS			
Microeconomics	3	3	ECON 54
Macroeconomics	3	3	ECON 55
ENGLISH			
Engl. Lit. and Comp.	3	3	ENGL 35
Engl. Lit. and Comp.	4	6	ENGL 35-36
Engl. Lang. and Comp.	3	3	ENGL 1
Engl. Lang. and Comp.	4	6	ENGL 1-2
(9 units max for both tests)			
ENVIRONMENTAL SCIENCE	3	4	GEOL 10 & 11/GEOG 10 & 11
FOREIGN LANGUAGE			
French Language	3	6	FRCH 103-104
French Literature	3	6	FRCH 191
German Language	3	6	GER 103-104
Spanish Language	3	6	SPAN 103-104
Spanish Literature	3	6	SPAN 191
Latin Literature	4	6	CLAS 109-110
GOVERNMENT AND POLITICS			
American	3	3	POLS 2
Comparative	3	3	POLS 1
HISTORY			
American	3	6	HIST 52-53
European	3	6	HIST 1-2
MATHEMATICS			
Calculus AB	3	4	MATH 14
Calculus AB	4	4	MATH 15
Calculus BC	3	4	MATH 15
Calculus BC	4	8	MATH 15-16
MUSIC			
Theory	3	3	To be determined by Division of Music
PHYSICS			
Physics B	3	4	PHYS 1
Physics B	4	8	PHYS 1-2
Physics C Mechanics	3	4	PHYS 11
Phys. C Elec./Magnet.	3	4	PHYS 12
PSYCHOLOGY			
Introductory Psych.	3	3	PSYCH 1
STATISTICS	3	3	STAT 101

***Note:** Students receiving AP credit for any physics course will have to register for and complete the corresponding physics labs by special arrangement with the Department of Physics.

College Level Examination Program (CLEP)

General Examinations	WVU Equivalent	Minimum Score Required
English Composition (with essay)	ENGL 1 (3 hr.)	590
English Composition (multiple choice)	No credit	
Humanities	LSP A non-specified credit (6 hr.)	500
Mathematics	LSP C non-specified credit (4 hr.)	500
Natural Science	LSP C non-specified credit (6 hr.)	500
Social Science and History	LSP B (6 hr.)	500
Subject Tests:		
American Literature	ENGL 24 (3 hr.)	59
Analysis & Interpret. of Literature	ENGL 35 (3 hr.)	59
College Composition	No credit	
English Literature	ENGL 22 (3 hr.)	60
Freshman English	No credit	
College French (levels 1 and 2)	FRCH 1 and 2 (6 hr.)	44
	FRCH 3 AND 4 (6 hr.)	55
College German (levels 1 and 2)	GER 1 and 2 (6 hr.)	43
	GER 3 and 4 (6 hr.)	54
College Spanish (levels 1 and 2)	SPAN 1 and 2 (6 hr.)	45
	SPAN 3 and 4 (6 hr.)	54
American Government	POLS 2 (3 hr.)	50
American History I	HIST 52 (3 hr.)	49
American History II	HIST 53 (3 hr.)	49
Western Civilization I	HIST 1 (3 hr.)	50
Western Civilization II	HIST 2 (3 hr.)	50
General Psychology	PSYC 1 (3 hr.)	50
Human Growth and Development	CD&FS 10 (3 hr.)	51
Intro. Macroeconomics	ECON 55 (3 hr.)	50
Intro. Microeconomics	ECON 54 (3 hr.)	50
Intro. Sociology	SOCA 1 (3 hr.)	50
College Algebra	MATH 3 (3 hr.)	48
Trigonometry	MATH 4 (3 hr.)	54
College Algebra/Trigonometry	MATH 14 (4 hr.)	50
Calculus with Elementary Functions	MATH 15 (4 hr.)	49
General Biology	BIOL 1 and 2 (6 hr.)	49
	(no credit for the labs)	
General Chemistry	CHEM 16 (4 hr.)	70
Computers and Data Processing	To be determined by the dept.	49
Intro. to Management	BCOR 185 (3 hr.)	50
Intro. Accounting	ACCT 51 and 52 (6 hr.)	54
Intro. Business Law	BCOR 150 (3 hr.)	51

College Level Examination Program (CLEP)

If you apply for admission to WVU and you have gained a significant level of maturity through your life experiences, you may gain college credit for these educationally related experiences through the College Level Examination Program (CLEP) of the CEEB. A policy of the University of West Virginia System Board of Trustees allows University credit to be awarded for successful completion of CLEP subject examinations, except for English composition and freshman English. Up to 34 hours of general education credit may be earned for successful performance on the CLEP General Examinations. Although this program was designed primarily for adults, exceptionally well-qualified high school seniors may use the CLEP Program. If you are interested, write to the director of admissions and records for additional information. The table on page 20 indicates the areas in which WVU grants credit based on the minimum score required. It should be noted that no one is eligible for CLEP credits after he/she has enrolled at WVU.

If you are a veteran, you may receive advanced placement for specific military experience. Veterans should contact the director of admissions and records for specific information.

Credit by Examination

If you are currently enrolled, you may receive credit for a course or courses if you can demonstrate competency in the course content. The department offering the course determines evaluation standards for the student's competency. If skill and cognitive abilities are components of the course, then both are evaluated. Credit is given only when a satisfactory degree of competency is shown.

A college, school, or department may ask you to prepare a self-evaluation statement. The purpose of the statement is to determine the competency you believe you have and the methods by which you achieved it. If you are interested in credit by examination, contact the dean in the college or school offering the course. The details and procedures will be explained to you at that time.

Credit for Correspondence Work

You may receive credit for correspondence work in non-laboratory courses. You have to meet certain conditions that govern this credit:

- A maximum of 30 hours is acceptable.
- The work must be from accredited institutions.
- The institution must accept the credit toward its own degrees.
- WVU must ordinarily accept that institution's residence work.

Graduate Credit Via Senior Petition

You may begin graduate study early through the University's senior petition policy. A senior petition form may be obtained from the Office of Admissions and Records. You must have it signed by your advisor, the dean of the college granting your degree, and the dean of the college of your intended graduate degree (if different). The University has certain policies for you to follow in order to enroll in a graduate course for graduate credit. The policies are:

- Senior petition applies only to courses numbered 200-399. You must be within 12 hours of receiving your bachelor's degree, and your grade-point average must be at least 3.0 on a 4.0 scale.

- You can receive only 12 graduate hours through the senior petition.
- You must have the proper signatures on your senior petition by the time you enroll in the petitioned courses.

Return the approved senior petition to the Office of Admissions and Records. It is kept on file so that you receive graduate credit for these courses on your permanent record. The dean of the college or school in which you are taking graduate courses must approve any exceptions to the policy.

Note: If you receive graduate credit for a course, the credit for that course does not count for your undergraduate degree.

Visitors

Full-time University students may attend classes as visitors. To visit a class, you must have permission in writing from your advisor and the instructor of the course. A member of the administration, teaching staff, or other regular University employees may also attend classes as visitors. These individuals also must have the written permission from their department and the instructor of the class. As a visitor, you do not receive credit for that class. You may not apply for a credit by exam in a class in which you were a visitor.

Auditors

You may register for courses as an auditor and pay full fees for the course. In this situation, you do not receive credit for the course. If you audit a course in one semester, you must let one semester pass before you enroll in the course for credit. You may change your status from audit to grade or grade to audit only during the registration period. Attendance requirements for auditors are determined by the instructor of the course. The instructor may direct the Office of Admissions and Records to remove an auditor from a class list or grade report if attendance requirements are not met.

Summer Sessions

WVU has two six-week sessions. Summer Session One begins in the middle of May and ends on June 30. Summer Session Two begins on July 1 and ends the second week of August. Requirements for admission and work performance for the summer sessions are the same as for the regular semesters.

You may earn credit toward a baccalaureate, master's, doctoral, or professional degree in the summer sessions. Summer offerings vary from year to year. For complete information concerning course offerings during the summer sessions, consult the *Summer Session Schedule of Courses*.

Evening Classes

If you are unable to attend classes during the day, the University offers evening courses taught by regular faculty. These courses carry full college credit and are offered at both the undergraduate and graduate levels.

Classification of Students

WVU undergraduates are classified as freshmen, sophomores, juniors, or seniors. These classifications are based upon the number of hours completed. The classifications are as follows:

Freshman classification	1-28 hours, inclusive
Sophomore classification	29-58 hours, inclusive
Junior classification	59-88 hours, inclusive
Senior classification	89 or more semester hours

Grade-Point Average

All academic units of the University require minimum standards of scholastic quality. Your grade-point average is computed on grades earned in courses taken at WVU and institutions in the WV system of higher education only. To be eligible to receive a baccalaureate degree, you must have a grade-point average of at least 2.0 at the time of graduation. Some degree programs require a higher grade-point average overall or in the major courses. Your grade-point average is based on all work for which you received letter grades other than W, WU, and P. See "D/F Repeat Policy."

You must make certain that you know your grade-point standing. You can obtain the necessary information concerning your grade-point standing from the dean of your college or school. To determine your grade-point average, use the method described in the section on grade points.

Graduation with Honors

WVU recognizes distinguished academic achievement by awarding degrees *cum laude*, *magna cum laude*, and *summa cum laude*. This distinction can be awarded on the initial or second baccalaureate degrees. All candidates for a baccalaureate degree with a grade-point average of 3.8 or higher graduate *summa cum laude*. Those with a grade-point average of less than 3.8 but equal to or above 3.6, graduate *magna cum laude*. Those with a grade-point average of less than 3.6 but equal to or above 3.4, graduate *cum laude*.

Your grade-point average for honors consideration is based on baccalaureate-level college work attempted through the next to the last semester or through the last semester, whichever GPA is higher. This calculation includes transferrable baccalaureate-level college work attempted at all regionally accredited higher education institutions you have attended. Credit hours earned with a grade of P or S are not considered in the determination. The grade-point average for honors consideration for entry-level professional degrees is based on baccalaureate-level and professional-level college work attempted at all regionally accredited higher education institutions you have attended. Credit hours earned with a grade of P or S are not considered in the determination. Additionally, your GPA on WVU work must meet the requirements stated for the level of honors to be designated. If your GPA on WVU work indicates a lower level of honors, then the WVU GPA shall govern the specific designation.

Students entering and completing a second baccalaureate degree program following completion of the initial degree at the University are eligible to receive the honors designation. Grade-point averages for graduation with honors on second baccalaureate degrees shall be computed on the last 80 semester hours of baccalaureate-level work excluding the credit earned with a P or S. At least 30 semester hours must have been completed in the second degree program through the penultimate semester.

A request for an exception to this policy may be made to your college/school dean. After review, the dean will forward all requests for exceptions of this policy to the provost for the final decision.

Academic Progress

Courses

As a general rule, most courses taught at WVU extend for one semester, although some extend for two semesters. Credit is not awarded for a course if you do not attend the whole course. The only exception to this rule occurs if the committee on academic standards decides to grant an exception. Grades reported at the end of the first semester in a two-semester course are merely an indication of the quality of the student's work to that point. Credit is not given for that part of the course completed. Courses taught in the summer sessions carry the same credit value as fall and spring semester courses.

Evaluation of Student Progress

Your progress is evaluated by a variety of methods. The measurement and evaluation of learning are consistent with the objectives of the course and provide the opportunity for you and your instructor to evaluate your progress. The University discourages evaluation by final examination only. You are responsible for all materials presented or assigned in scheduled instructional sections. If you do not complete all assigned work, you may earn an incomplete (I) or a failing grade (F).

The last week of each semester of the academic year is designated finals week. Final examinations for the summer sessions are given on the last day of classes. The *Schedule of Courses* gives the date and times for final examinations.

Practical laboratory tests, makeup examinations, and regularly scheduled short quizzes are the only tests permitted for day classes during the week of classes preceding finals week. Evening classes have their final exams the last meeting of the class preceding finals week.

If you take a section of a multi-section course, you may be required to take the departmental final examination, given during the regular final examination period.

Grading System

A	excellent (given only to students of superior ability and attainment)
B	good (given only to students who are well above average, but not in the highest group)
C	fair (average for undergraduate students)
D	poor but passing (cannot be counted for graduate credit)
F	failure
I	incomplete
W	withdrawal from a course before the date specified in the University calendar
WU	withdrawal from the University doing unsatisfactory work
P	pass (see "Pass-Fail Grading" below)
X	auditor, no grade and no credit
CR	credit but no grade
PR	progress. Final grade at end of the second semester (HSC)
S	satisfactory
U	unsatisfactory (equivalent to F)
*F	unforgivable F, not eligible for D/F repeat policy

Pass-Fail Grading

Pass-fail grading encourages you to take elective courses not related to your degree concentration. Pass-fail grading also facilitates grading in competency-based courses which may be an integral part of your program.

Student Option. Any full-time student who has completed 15 hours or more and has maintained a 2.0 grade-point average may take a maximum of four hours each semester or summer session on a pass-fail basis. Any course taken on a pass-fail basis must be a free elective. You are limited to a total of 18 hours of pass-fail credit in your collegiate career. Unless otherwise indicated, courses in your major, courses in other subjects that are required by the major, and courses taken to satisfy University, college, school, or departmental requirements are excluded from pass-fail. For example, courses elected to satisfy the English, Liberal Studies Program (LSP), or foreign language requirements may not be taken for pass-fail grading.

If you elect a course on a pass-fail basis, you are graded as a regular student. The instructor gives the letter grade to the Office of Admissions and Records. The letter grade is then converted to a P on the basis of A, B, C, or D for a pass and F for a fail. The grade of P does not affect your GPA. However, any F grade affects your GPA whether it is a regular grade or a pass-fail grade.

You choose the option of pass-fail grading for a course during the registration period. Once the registration period has ended, you may not change the grade status in the course.

College or School Option. A department or unit may designate any performance or competency-based course as exclusively pass-fail. To do this, the college or school must have the approval of the faculty senate. Courses offered only as pass-fail are not included in the maximum of 18 hours that may be freely elected under the student option.

Grade Points

Each letter grade has a numeric value. Grade points are based on this number value and the credit-hour value of the course. The numeric value of letter grades are as follows:

A	B	C	D	F	I	U
4	3	2	1	0	0	0

The grade-point average is computed on all work for which you registered, with the following exceptions:

- Courses with a grade of W, WU, P, S, and X carry no grade value. The grade of incomplete (I) initially carries no grade value.
- The grade of I is given when the instructor of the course believes that the work is unavoidably incomplete or that an additional examination is justified. To remove the grade of I, you do not register for the course again; instead, you arrange to submit incomplete or supplemental work to the original instructor of the course. When you receive the grade of I and later remove the incomplete grade, the grade-point average is calculated on the basis of the new grade. If you do not remove the I grade within the next semester in which you are enrolled, the grade of I is treated as an F (Failure). The Academic Standards Committee of the appropriate college or school may allow you to postpone removal of the I grade if you can justify a delay.
- If you are working toward teacher certification, you are responsible for every registration in a course in which the grade of A, B, C, D, F, WU, P, X, or I is received.

GPA Calculations

Students like to know how to calculate their overall and semester grade-point averages. The following example shows how to do it. Assume you are registered for 16 hours and receive the following grades in these courses:

English 1	B	Mathematics 3	A
Geology 1	C	Political Science 1	B
Spanish 1	D	Orientation 1	P

Course	Credit	Grade	Grade Value	Credit X Grade Value	Grade Points
English 1	3	B	3	3 X 3	= 9
Geology 1	3	C	2	3 X 2	= 6
Spanish 1	3	D	1	3 X 1	= 3
Mathematics 3	3	A	4	3 X 4	= 12
Political Science 1	3	B	3	3 X 3	= 9
Orientation 1	1	P	0	1 X 0	= 0

1. Multiply the credit by the grade value to get the grade points earned for each course.
2. Add the Total grade points, in this case, 39.
3. Divide the total grade points by the total credit hours with a grade value. Remember that P grades have no grade value, so in this case, there are 15 credit hours for the GPA calculation. 39 divided by 15 = grade-point average of 2.6.

D/F Repeat Policy

WVU has a D/F repeat policy for undergraduate students who have not received their initial baccalaureate degree. If you earn a D or F in a course at WVU taken no later than the semester or summer session registration when you reach a cumulative total of 60 hours attempted, you are eligible to D/F repeat that course by meeting with your academic advisor sometime during the semester in which you are repeating the course and filling out the appropriate forms. You must repeat the course at WVU. You will have only one opportunity to improve your original grade. The new grade becomes the grade that counts, even if your performance is worse than when you were originally graded.

When you have D/F repeated a course, the following happens:

1. The original grade is disregarded for the purpose of determining your grade-point average, hours passed, and hours attempted.
2. The original grade is not deleted from your permanent record.
3. The second grade is entered on your transcript and marked "repeat" in the semester that you repeated the course.
4. You can exercise your right under the D/F repeat policy at any time before you receive your initial baccalaureate degree. If you get a grade of F in a course for disciplinary reasons or for cheating, the grade is not eligible for change under the D/F repeat provisions. Such a failure is indicated on your permanent record by an *F and is calculated in your grade-point average.

Grade Reports

During the seventh week of classes in the fall and spring semesters, instructors submit a report of all undergraduate students earning grades of D or F. These grades are used for counseling and are not recorded on the student's official permanent record. These reports are sent first to the Office of Admissions and Records and then to the student, the student's advisor, and the dean of the college or school in which the student is enrolled.

Final grades are reported within 48 hours after the end of the final examination. The instructor submits the grade reports to the Office of Admissions and Records. The final grades of all seniors provisionally approved for graduation at the close of each semester or summer session are reported to the deans of their colleges or schools. Special report forms for this purpose are supplied by the student's dean.

At the end of each semester or at the close of each summer session, a report of each student's work is prepared for that period and sent to the student.

West Virginia University Policy on the Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 is a Federal law which states: (a) that a written institutional policy must be established; and (b) that a statement of adopted procedures covering the privacy rights of students be made available. The law provides that the institution will maintain the confidentiality of student education records.

West Virginia University accords all the rights under the law to students who are declared independent. No one outside West Virginia University shall have access to nor will West Virginia University disclose any information from students' educational records, without the written consent of students except to personnel within West Virginia University and the West Virginia Board of Trustees; to persons or organizations providing students' financial aid; to accrediting agencies carrying out their accreditation function; to persons in compliance with judicial order; to organizations conducting studies for, or on behalf of, education agencies of institutions for the purpose of developing, validating, or administering predictive testing student aid programs, and improving instruction; and to persons in an emergency in order to protect the health or safety of students and/or other persons. All these exceptions are permitted under the Act.

The act also permits disclosure of information from students' educational records, without the written consent of students, to parents of a dependent student of such parents, as defined in Section 152 of the Internal Revenue Code of 1954, as amended. West Virginia University intends to consider all students as "dependent" for purposes of disclosure of information to parents unless the students specifically notify, in writing, the Office of Admissions and Records, West Virginia University, that they are not a "dependent" of their parents for federal income tax purposes. Students need to give such written notification only once.

The West Virginia University Policy on the Family Educational Rights and Privacy act explains in detail the procedures to be used for compliance with the provisions of the Act. Copies of the policy can be found in the offices of all deans and directors. The policy also is printed in the *Student Handbook* and annually in the *Daily Athenaeum*. The offices of the deans and directors can inform students as to the locations of all education records maintained on students by West Virginia University.

Transcripts of Academic Records

Each copy of an official transcript costs five dollars, payable in cash or money order. You may request, in person, an on-the-spot transcript at a cost of eight dollars. Priority service is not available at all times. Because of demand, it may take two to three weeks to process an application for a regular transcript at the close of a semester or summer session. At other times, it is the policy of WVU to process all regular transcript requests within 48 hours of receipt of the request.

If you owe money or have some other financial obligation to any unit of the University, you forfeit your right to claim a transcript of your record until you meet your obligation. Additionally, you also forfeit the right to claim your diploma until these financial obligations have been met.

When you apply for a transcript, you must furnish your last date of attendance and your student number. Be sure to indicate the full name under which you were enrolled. Requests for transcripts must be made in writing to the Office of Admissions and Records. We cannot accept telephone requests because of the risk to the security of your record.

Final Grade Appeals

Students have the right to appeal final course grades which they believe reflect a capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race, sex, age, handicap, veteran status, religion or creed, sexual orientation, color, or national origin. The grade appealed shall remain in effect until the appeal procedure is completed or the problem resolved. The primary intent of this procedure is to provide a mechanism whereby a student might appeal a failing grade or a grade low enough to cause the student to be eliminated from some program or to require the repetition of a course. Grade appeals that do not meet this classification are not precluded.

Step 1. The student shall discuss the complaint with the instructor involved prior to the midsemester of the succeeding regular semester, whether the student is enrolled or not. If the two parties are unable to resolve the matter satisfactorily, or if the instructor is not available, or if the nature of the complaint makes discussion with the instructor inappropriate, the student shall notify the chairperson of the instructor's department or division (or, if none, the dean). The chairperson or dean shall assume the role of an informal facilitator and assist in resolution attempts. If the problem is not resolved within 15 calendar days from when the complaint is first lodged, the student may proceed directly to Step 2.

Step 2. The student must prepare and sign a document which states the facts constituting the basis for the appeal within 30 calendar days from when the original complaint was lodged. Copies of this document shall be given to the instructor and to the instructor's chairperson (or, if none, to the dean). If, within 15 calendar days of receipt of the student's signed document, the chairperson does not resolve the problem to the satisfaction of the student, the student will forward the complaint to the instructor's dean (see Step 3).

Step 3. Within 15 calendar days of receipt of the complaint, the instructor's dean shall make a determination regarding the grade, making any recommendation for a grade change to the instructor involved. If the instructor involved does not act on the dean's recommendation, or if the student is in disagreement with the decision of the dean, the dean will refer the case to a representative committee, appointed by the dean, for final resolution. This committee shall consist of three or more faculty members, including at least one person outside the instructor's discipline.

1. Upon receiving an appeal, the committee will notify in writing the faculty member involved of the grade challenge, which shall include a statement of the facts and evidence to be presented by the student.
2. The committee shall provide to the faculty member involved and the student making the appeal written notification of their right to appear at a hearing to be held before the department or college or school representative committee, together with the notice of the date, time, and place of the hearing.
3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
4. The final decision of this committee shall be forwarded to the instructor and to the dean involved. If the decision requires a change of grade, the instructor shall take action in accordance with the committee's decision.
5. If the instructor does not act within five days, the dean shall make any necessary grade adjustment.
6. In the case of grade appeals, the dean functions as the president's designee; therefore, implementation of this decision shall end the appeal procedure.

Absences

If you are absent from class for any reason, you are responsible for all work that you missed. Absences may jeopardize your grade(s) in that class or possibly the ability to continue in that course. Instructors are responsible for keeping an accurate record of students enrolled in their classes and their attendance. If an instructor uses attendance records in determining the final grade in a course, then this fact must be announced to the students in writing within the first five class meetings.

Absence from Examinations

You are required to take all regular examinations in a course. If you attend a course all semester but you do not take the final examination and you do not have the instructor's permission to miss it, the instructor may give you a grade of zero for the examination and report a grade of F for the course. If, however, the instructor believes your absence was necessary, he/she has the option to report a grade of incomplete (I).

If your absence from a regularly scheduled examination was due to illness, an authorized University activity, or another reason approved by your dean, you have the opportunity to make up the examination.

Withdrawals From Individual Classes

Deadlines: Until the Friday of the tenth week of class (or Friday of the fourth week in a six-week summer session, or Friday of the second week of a three-week summer session), students may withdraw from individual courses. Deadlines are published in the University *Schedule of Courses* each semester. If you follow all established University procedures and withdraw before the published deadline, you will receive a W on your transcript. Grade-point averages are not affected in any way by this mark.

Procedures:

1. Before withdrawing from individual classes, consult your advisor to determine:
 - Whether your course load would be reduced below the minimal requirements set by your college or school. If so, you must get permission from the committee on academic standards of your college or school before you submit the course adjustment form.
 - Whether your course load would be reduced below the minimal number of hours required to qualify for financial aid, varsity athletic competition, or international full-time student status.
 - Whether the courses to be dropped are required to fulfill academic probationary conditions.
 - Whether the courses from which you want to withdraw might be corequisite with other courses you are taking, or prerequisite to other courses required for the next term.
2. Ask your advisor to sign the University course adjustment forms and then submit the forms to the Office of Admissions and Records.

Withdrawal From All Classes for the Term

Deadlines: You may withdraw from the University any time before the last day of a semester or session on which regular classes are scheduled to meet. If you withdraw before the Friday of the tenth week of classes (or the Friday of the fourth week in a six-week summer session, or the Friday of the second week of a three-week summer session) you receive grades of W in all of your courses for that semester or session. After these deadlines, you will receive grades of W in those courses in which you made satisfactory progress and grades of WU for courses in which your progress had been unsatisfactory.

Procedures:

1. Students who decide to leave WVU should withdraw from all classes and must do so in accordance with established University policy. Students are responsible for all financial obligations and for following established procedures. This includes the completion of forms and the delivery of the completed forms to appropriate officials. Students not fulfilling their financial obligations may have difficulty withdrawing from the University. A withdrawal becomes official only after the forms have been recorded by the director of admissions and records.
2. Students who are unable to withdraw in person because of illness, accident, or other valid reasons still must send notification of their intention to withdraw to the Office of Student Life. The notice should be verified in writing and the student ID and PRT cards enclosed.
3. Students who desire to withdraw from WVU must obtain a withdrawal form from the Student Affairs office (or dean's office of an off-campus instructional unit). Withdrawal procedure is explained at that time. Identification (ID) and PRT cards must be presented.
4. With the help of their academic advisors, students are responsible for determining how withdrawal from the University may affect their future status with the University, including such aspects as suspension for failure to make progress toward a degree or violation of established academic probation and eligibility for scholarships, fellowships, or financial aid.

Academic Leave of Absence

WVU offers undergraduate students in good standing, as defined by WVU's uniform suspension policy and not subject to disciplinary action, the opportunity to request an academic leave of absence. The academic leave of absence is designed for the student who wishes to be away from his/her academic endeavors at WVU for one or more semesters, but intends to return at a later date. Leave of absence status must be requested before the beginning of the semester for which the leave is desired. The academic records of students on an academic leave of absence remain in an active status. While on an academic leave of absence, the student retains the right to use certain campus facilities such as the Reading Lab, Writing Lab, Math Lab, Student Counseling Service, and Career Services. When a student decides to return to WVU after his/her academic leave of absence, application fees are waived. If a student attends any institutions of higher education while on leave of absence, s/he must obtain an overall average of 2.0 on all work attempted in order to be eligible to return. An overall grade-point average of 2.0 on all work attempted while on leave combined with the WVU grade-point average is also acceptable. While on an academic leave of absence, the student receives communications from WVU. Academic advisors and the Office of Admissions and Records can provide additional details about an academic leave and eligibility requirements.

Re-Enrollment After Withdrawal

After you withdraw from WVU in two consecutive semesters (excluding summer sessions), you may not register for further work without approval of the dean of the college or school in which you want to register and subject to conditions set by that dean.

Committee on Academic Standards

The committee on academic standards of each college or school shall have authority to proceed according to its best judgment in regard to students referred to it for consideration. All orders of the committee shall become effective when approved by the dean of the college or school. In exercising its authority, the committee shall not suspend a student during a semester except for willful neglect and in cases where the student's class grades are so low that further class attendance would be a waste of time. No suspension shall become effective until approved by the dean of the college or school.

Probation, Suspension, Readmission, Expulsion Policy **Uniform Probation**

Students with a cumulative grade-point average below 2.0 are notified on semester grade reports that their academic performance is unsatisfactory. Such students may be subject to probation by the dean of their college or school. A unit may require a grade-point average above 2.0 or other academic requirements for purposes of determining probation or meeting degree requirements. Students have the right to have the sanction of academic probation reviewed and explained by the academic official who imposed the sanction. Academic probation is not recorded on a student's permanent record and constitutes a warning to the student of standards which must be met.

Maximum Allowable Grade-Point Deficiency*

<i>Total Hours Attempted**</i>	<i>Maximum Grade-Point Deficiency**</i>	<i>Total Hours Attempted**</i>	<i>Maximum Grade-Point Deficiency**</i>
0-19	20	55-59	12
20-24	19	60-64	11
25-29	18	65-69	10
30-34	17	70-74	9
35-39	16	75-79	8
40-44	15	80-84	7
45-49	14	85 or more	6
50-54	13		

*The grade-point deficiency is the difference between the number of grade points needed for a 2.0 average and the number of grade points that a student has actually earned in all courses attempted.

**Includes all hours attempted in institutions in the West Virginia System of Higher Education, excluding grades of P and exclusive of the D/F Repeat Policy.

Uniform Academic Suspension Regulations

The student whose cumulative grade-point deficiency exceeds the "allowable grade-point deficiency" (see table) is subject to suspension at any time. Normally, students are suspended at the end of a semester or summer school session. Deans have the authority to waive suspension in favor of probation if in their judgment the circumstances of individual cases so warrant. The suspension rule will be set aside only under extraordinary conditions.

Academic suspension identifies the status of a student who has failed to meet the University minimum standards and who has been notified formally by the dean of the college or school of academic suspension. Suspension from the University means that a student will not be permitted to register for any classes, including those in summer sessions, offered by the University for academic credit until the student has been officially reinstated. The normal period of suspension is a minimum of one academic semester but will not exceed one calendar year from the date of a student's first suspension. A student who has been suspended for academic deficiencies and who takes courses at other institutions during the period of suspension cannot automatically transfer such credit toward a degree at West Virginia University upon readmission to the University. Students are not eligible for readmission if they earn less than a 2.0 at other institutions while on suspension from WVU.

After one semester of satisfactory performance (C average or better on a minimum of 12 credit hours earned during a regular semester or during the summer sessions) the appropriate transfer credit will be entered into the student's record upon certification by the advisor and dean that the above conditions have been met. A student who has preregistered and is subsequently suspended shall have his/her registration automatically cancelled.

Reinstatement After Suspension

During the semester immediately following the effective date of suspension, suspended students may petition in writing for reinstatement. The college or school petitioned shall establish the terms of reinstatement for successful student

petitions. After one calendar year from the effective date of suspension, any student who has been suspended one time shall, upon written application, be reinstated to the University and to the college or school in which the student was previously enrolled, unless the student petitions for admission to another college or school. The college which reinstates the student removes the student's suspension restriction in the Office of Admissions and Records and accepts the student.

A suspended student who is reinstated under the provisions above will be placed on academic probation and will be subject to the maximum grade-point deficiency regulations as before, unless the terms of probation agreed to by the student and that college stipulate otherwise. Each college or school shall have the right to establish requirements or performance expectations.

After the second or any subsequent suspension, a student may be reinstated to the University provided that a college or school agrees to reinstate the student. After a student has been reinstated, he/she must apply for readmission through the Office of Admissions and Records.

Appeal of Suspension

Imposition of academic suspension based on grade-point average, failure to meet the conditions previously specified for removal of academic probation, or failure to meet the conditions of admission, may be appealed under the following conditions:

- The student may appeal individual final course grades and, if successful, may be reinstated.
- The student may make an appeal to the appropriate dean based on erroneous calculation of the grade-point average or on erroneous calculation of the time period within which a grade-point average must be achieved. The decision of the dean, as the president's designee, is final.

Students have the right to appeal academic suspensions based on requirements or standards other than grades or grade-point average which they believe reflect capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race or color, sex, sexual orientation, veteran's status, religion, age, disability, national origin, creed, ancestry, or political affiliation. At the dean's discretion, suspensions may remain in effect until appeal procedures are completed.

Step 1. The student shall discuss the complaint with the dean involved within 30 calendar days of the action taken. If the two parties are unable to resolve the matter satisfactorily within 15 calendar days, the student may proceed to Step 2.

Step 2. The student must prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document shall be given to the university committee on student rights and responsibilities. Within 15 calendar days of receipt of the appeal, the university committee on student rights and responsibilities will arrange a hearing using the following procedures:

1. All parties involved shall receive written notice of the date, time, and place of the hearing.
2. The student may be advised by a person of his/her choice from within the institution; likewise, the academic officer recommending suspension may have an advisor from within the institution. Such advisors may consult with but may not speak on behalf of their advisees or otherwise participate.

3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
4. Witnesses may be called by any of the parties involved.
5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of the parties involved upon written request.

The decision of the University Committee on Student Rights and Responsibilities will be sent to the dean involved and the student within seven calendar days of the hearing. If the decision requires a reinstatement, the dean will take action in accordance with the Committee's decision. If the decision of the Committee is to uphold the suspension, the student's appeal must reach the appropriate Vice President within 30 calendar days of receipt of the Committee decision. The Vice President will review and make a decision regarding the suspension within 15 calendar days of receiving the student's appeal. The decision of the Vice President, as the President's designee, is final.

Uniform Academic Dismissal Regulations

Academic dismissal from the University means that a student will not be permitted to register for any classes, including those in summer sessions, offered by the University. Academic dismissal can result from repeated failure to make academic progress and/or to meet probationary terms set forth in writing by the student's college or school.

After five calendar years from the effective date of academic dismissal, any student who has been dismissed shall, upon written application, be considered for reinstatement to the University, with the terms of reinstatement to be established by the college or school entered. Failure to meet these terms will result in permanent academic expulsion.

Appeal of Dismissal

Note: The procedures and appeals described do not apply to dismissal as a sanction for academic dishonesty.

The time limitations stated herein are suggested in order to render a decision as expeditiously as possible. In the case of University holidays or absence of person(s) involved, reasonable delays may be expected.

A decision to dismiss a student for failure to meet academic standards (as distinguished from academic dishonesty) can be made only after the student has been counseled by the appropriate departmental committee or representative, with counseling to take place as soon as possible after discovery of the problem. After the student is given a reasonable opportunity to correct deficiencies, there shall then be a formal review of the student's status by the appropriate departmental or program committee to determine whether the student shall be retained or dismissed. The student may provide the committee written documentation of his/her efforts to correct deficiencies. A committee recommendation for dismissal, including any documentation provided by the student to the committee, shall be forwarded to the student's dean and to the student. Within 15 calendar days of receipt of the committee's recommendation, the dean shall inform the student and the student's department/program of his/her decision. A decision to dismiss shall specify whether the dismissal is from the program or college/school. The dean may also dismiss a student from the institution if the student does not meet institutional standards.

Dismissal, based on grades or grade-point average, from undergraduate programs, graduate programs, professional programs, and/or from the institution, may be appealed.

Step 1. The student shall prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document must reach the dean within 30 calendar days of receipt of written notice of dismissal. The student shall be given an opportunity to discuss the appeal with the dean at any time in Step 1. If the matter is not resolved satisfactorily within 15 calendar days of a dean's receipt of a student's appeal, the student may proceed to Step 2.

Step 2. The student will forward a copy of the appeal to the appropriate Vice President within 15 calendar days of failure to resolve the matter at the dean's level. Prior to the decision of the vice president, the student will be given an opportunity to discuss the appeal with the vice president. The decision of the vice president, as the president's designee, shall be rendered within 15 days of receipt of the student's appeal and is final.

Dismissal, based on failure to meet academic requirements or performance standards irrespective of grades or grade-point average, from undergraduate programs, graduate programs, professional programs, and/or from the institution, may also be appealed. Students have the right to appeal academic dismissal based on requirements or standards other than grades or grade-point average which they believe reflect capricious, arbitrary, or prejudiced academic evaluation, or reflect discrimination based on race or color, sex, sexual orientation, veteran's status, religion, age, disability, national origin, creed, ancestry, or political affiliation.

Step 1. The student shall prepare and sign a document which states the facts constituting the basis for the appeal. A copy of this document must reach the dean within 30 calendar days of receipt of written notice of dismissal. The student shall be given an opportunity to discuss the appeal with the dean at any time in Step 1. If the matter is not resolved satisfactorily within 15 calendar days of the dean's receipt of a student's appeal, he/she may proceed to Step 2.

Step 2. The student will forward a copy of the appeal to the university committee on student rights and responsibilities, which, within 15 calendar days of receipt of the student's appeal, will arrange a hearing using the following procedures:

1. All parties involved shall receive written notice of date, time, and place of hearing.
2. The student may be advised by a person of his/her choice from the institution; likewise, the academic officer recommending academic dismissal may have an advisor from the institution. Such advisors may consult with but may not speak on behalf of their advisees or otherwise participate directly in the proceedings unless they are given specific permission by the university committee on student rights and responsibilities chairperson.
3. The administrative procedure is not adversarial in nature; the formal rules of evidence do not apply.
4. Witnesses may be called by any of the parties involved.
5. A record of the appeal shall be prepared in the form of summary minutes and relevant attachments and will be provided to any of the parties involved upon written request.

The university committee on student rights and responsibilities will reach a decision within seven days. The committee's recommendation for dismissal must be reviewed by the appropriate vice president, who may confirm or remand the recommendation with specific instructions. Prior to the decision of the vice president, the student will be given an opportunity to discuss the appeal with the vice president. Within 15 calendar days of a recommendation for dismissal confirmed by the vice president, the student may appeal to the president. The decision of the president is final.

Academic Integrity/Dishonesty

The academic development of students and the overall integrity of the institution are primary responsibilities of WVU. Academic dishonesty is condemned at all levels of life, indicating an inability to meet and face issues and creating an atmosphere of mistrust, disrespect, and insecurity. In addition, it is essential in an academic community that grades accurately reflect the attainment of the individual student. Faculty, students, and administrators have shared responsibilities in maintaining the academic integrity essential for the University to accomplish its mission.

Responsibilities

Students should act to prevent opportunities for academic dishonesty to occur, and in such a manner to discourage any type of academic dishonesty. Faculty members are expected to remove opportunities for cheating, whether related to test construction, test confidentiality, test administration, or test grading. This same professional care should be exercised with regard to oral and written reports, laboratory assignments, and grade books.

Deans and department chairpersons are expected to acquaint all faculty with expected professional behavior regarding academic integrity, and to continue to remind them of their responsibility. Deans and department chairpersons shall assist faculty members and students in handling first-offense cheating allegations at the lowest possible level in the University, and with discretion to prevent damage to the reputation of any person who has not been found guilty in the prescribed manner.

Each member of the teaching faculty and all other WVU employees, including but not limited to assistants, proctors, office personnel, custodians, and public safety officers, shall promptly report each known case of academic dishonesty to the appropriate supervisor, department chairperson, or dean of the college or school concerned, and to the Office of Judicial Programs, Office of Student Life.

Academic Dishonesty Defined

West Virginia University expects that every member of its academic community shares the historic and traditional commitment to honesty, integrity, and the search for truth. Academic dishonesty is defined to include but is not limited to any of the following:

1. **Plagiarism:** To take and pass off as one's own the ideas, writings, artistic products, etc. of someone else; for example, submitting, without appropriate acknowledgment, a report, notebook, speech, outline, theme, thesis, dissertation, or other written, visual, or oral material that has been knowingly obtained or copied in whole or in part,

from the work of others, whether such source is published, including (but not limited to) another individual's academic composition, compilation, or other product, or commercially prepared paper.

2. **Cheating and dishonest practices** in connection with examinations, papers, and projects, including but not limited to:
 - a. Obtaining help from another student during examinations.
 - b. Knowingly giving help to another student during examinations, taking an examination or doing academic work for another student, or providing one's own work for another student to copy and submit as his/her own.
 - c. The unauthorized use of notes, books, or other sources of information during examinations.
 - d. Obtaining without authorization an examination or any part thereof.
3. **Forgery, misrepresentation or fraud:**
 - a. Forging or altering, or causing to be altered, the record of any grade in a grade book or other educational record.
 - b. Use of University documents or instruments of identification with intent to defraud.
 - c. Presenting false data or intentionally misrepresenting one's records for admission, registration, or withdrawal from the University or from a University course.
 - d. Knowingly presenting false data or intentionally misrepresenting one's records for personal gain.
 - e. Knowingly furnishing the results of research projects or experiments for the inclusion in another's work without proper citation.
 - f. Knowingly furnishing false statements in any University academic proceeding.

Procedure for Handling Academic Dishonesty Cases

Academic dishonesty includes plagiarism; cheating and dishonest practices in connection with examinations, papers, and projects; and forgery, misrepresentation, and fraud. Some cases of forgery, misrepresentation, or fraud which occur outside the context of courses or academic requirements may be referred directly to the university committee on student rights and responsibilities by any member of the university community. In such cases, the university committee on student rights and responsibilities will arrange a hearing following the procedure outlined in Step 3 within 15 calendar days of receipt of the charges.

Step 1. Instructor's Level

1. **Instructor's Notice:** An instructor who suspects a student of dishonest practices may meet with the student to discuss the evidence and may drop the matter without making a formal accusation and without imposing a penalty. An instructor may not find guilt or impose a penalty without a written charge that describes the evidence against the student. Within 15 calendar days of discovering clear evidence of an offense, and instructor who wishes to charge a student with academic dishonesty must **personally deliver written notice** of the charges **or send the notice by certified U.S. mail** to the **student's local and permanent addresses**.
2. **Student's Response:** A student who elects to respond must do so in writing no later than 15 calendar days after the mailing or

personal delivery of the instructor's written notice. The student may respond by admitting or denying guilt, by offering counter evidence, or by describing extenuating or mitigating circumstances that might affect the instructor's judgement of the severity of the offense.

3. **Instructor's Decision:** Within five calendar days of the student's response or after the opportunity for response has passed (which ever comes first), the instructor must reach a decision and send written notice of the decision to the student (and, if guilt is found, to others named below).
 - a. **Charge withdrawn:** An instructor who believes that the evidence is not sufficient to establish guilt should immediately notify the student of this decision in writing, thus closing the case.
 - b. **Penalty imposed:** An instructor who is convinced that the student is guilty and wishes to impose an academic penalty must summarize the evidence justifying the penalty in a written notice to the student. The notice must also inform the student of the right to petition the dean within 30 calendar days. Copies of the notice must be sent to the dean of college or school offering the course, the dean of the college or school in which the student is enrolled, and the Office of Judicial Programs. The maximum penalty an instructor may impose is an unforgivable F in the course. The Office of Judicial Programs will notify Admissions and Records to enter an unforgivable F, which can not be removed from the student's transcript unless the decision is reversed. If the student repeats the course and a new grade is entered, the unforgivable F will still remain on the transcript. The instructor may exclude the student from further participation in the course, but is discouraged from doing so unless the student has admitted guilt in writing. The instructor may impose lesser penalties, including (but not limited to) a reduced grade on the work or examination in question, assignment of remedial work, or a reduced grade (including a forgivable F). The instructor may also recommend to the dean of the college offering the course that additional penalties be imposed.

Step 2. Dean's Level: A student may petition the dean on two grounds, which may be presented at the same time or separately within the 30 day time limit. A student may I. ask the dean to review the conduct of the case for adherence to correct procedures; II. challenge the finding of guilt or the severity of the penalty; or III. do both.

1. **Procedural Review:** A student who believes that the instructor failed to follow correct procedures at Step I may petition the dean of the college or school in which the course is offered to conduct a review of the procedures. The student must submit the petition in writing, specifying the procedural errors, within 30 days of the instructor's written notice. Within 15 calendar days of receiving the student's petition, the dean or the dean's designee must:
 - a. Notify the instructor that a procedural review is being conducted at the student's request and give the instructor an opportunity to reply.
 - b. Decide, after reviewing the available information, whether any procedural errors were made and whether such errors affected the outcome of the case.
 - c. Send written notice of the decision and its rationale to the student, instructor, dean of the college in which the student is enrolled, and Office of Judicial Programs. A dean or dean's designee who decides that the outcome was affected may I. direct the instructor to reopen the case and to correct the error(s) within

a specified period of time, or II. overturn the instructor's decision and nullify the penalty, in which case the dean must see that the student's record is amended. If the dean or dean's designee decides that the outcome was not affected, the instructor's decision stands.

2. **Appeal:** A student who wishes to challenge the instructor's finding of guilt or the severity of the penalty may appeal to the dean of the college or school in which the course is offered. The appeal must I. be made in writing within 30 calendar days of the instructor's written notice; II. state specific grounds for any claim that the finding of guilt was unwarranted or the penalty unjust; and III. specify the desired remedy. Within 15 calendar days of receiving the student's appeal the dean or dean's designee must:
 - a. Notify the instructor that the student is appealing and specify whether the finding of guilt, the severity of the penalty, or both will be reviewed.
 - b. Solicit from the instructor and the student evidence and arguments relevant to the issues.
 - c. Make this material available to both the student and the instructor.
 - d. Arrange a meeting of the instructor, the student, and the dean or dean's designee. (A person from within the University may accompany the student to the meeting and may consult with the advisee but not speak on behalf of the student or otherwise participate directly in the discussion unless given explicit permission by the dean or dean's designee.
 - e. Decide, based on the available evidence, whether to uphold the decision being challenged.
 - f. Send written notice of the decision, with summary minutes of the meeting and a rationale for the decision to the student, instructor, I dean of the college or school in which the student is enrolled, and Office of Judicial Programs.
 - g. See that the student's record is amended if necessary.
3. **Additional Penalties:** The dean or dean's designee may impose penalties beyond those imposed by the instructor if the instructor recommends such action or if the dean's understanding of the case in the context of other misconduct by the student suggests that additional penalties are warranted. The dean or dean's designee may consider such action only after completing any procedural review or appeal requested by the student or after opportunities have passed for the student to initiate a review or appeal (that is, after it is clear that the instructor's decisions will stand). Within 15 calendar days of this time, the dean or dean's designee must:
 - a. Notify the student that additional penalties are being considered.
 - b. Give the student an opportunity to provide additional evidence or argument that might affect a decision about the appropriate penalty and to answer any questions by the dean or dean's designee.
 - c. Decide, based on the available evidence, whether to impose any additional penalties.
 - d. Send written notice of the decision, including a summary of the evidence of the decision, including a summary of the evidence and a rationale for the decision, to the student, instructor, dean of the college or school in which the student is enrolled, and Office of Judicial Programs.
 - e. See that the student's record is amended if necessary.

Step 3. University Committee Level.

A student or instructor may petition the committee on students rights and responsibilities on two grounds, which may be presented at the same time or separately within 30 calendar days of receipt of the dean's decision. A petitioner may I. ask the Committee for a procedural review; II. challenge decisions made at Step II. or III. do both. Those petitioning the committee must do so in writing through the office of judicial programs.

1. **Procedural Review:** The student or the instructor may ask the Committee to conduct its own review of the procedures followed in Steps I. and II.
 - a. The petition must I. name the dean or instructor who is believed to have made the error(s); II. described the alleged procedural error(s); III. specify how the error(s) affected the outcome of the case or otherwise harmed the student or the cause of justice; and IV. include copies of all documentation and correspondence about the case.
 - b. On receipt of the petition, the committee chair, in consultation with the office of judicial programs, will convene a panel of two faculty members and one student who will decide by majority vote whether to conduct the review. No member of this panel may serve on any other panel in connection with the same case. If the panel denies the petition, the procedural case is closed when written notice of the denial and its rationale has been sent to the student, instructor, dean of the college or school offering the course, dean of the college or school in which the student is enrolled, and office of judicial programs. If a majority of the panel agrees that a review is warranted, they must I. give the student, instructor, and dean a reasonable opportunity to answer any questions the panel may have; II. decide, based on a review of the available information, whether any procedural errors were made and whether any such errors affected the outcome of the case; and III. send written notice of the decision, with summary minutes of the meeting and a rationale for the decision to the student, instructor, deans of the college or school offering the course and the college or school in which the student is enrolled, and office of judicial programs.
 - c. A panel that decides by majority vote that the outcome was affected by error(s) may I. direct the dean or instructor to reopen the case and to correct the error(s) within a specified period of time or II. overturn the finding of guilt and nullify the penalty. In either course of action, the panel must provide the rationale for the decision.
 - d. The dean of the college or school offering the course must see that the student's record is amended if necessary.
2. **Appeal:** The student or instructor may challenge the decision(s) of Step 2. (If the dean upheld the instructor's finding or penalty, then the student is appealing the instructor's decision, not the dean's.)
 - a. The petition must I. specify the decision being appealed; II. name the person whose decision is being appealed; III. specify grounds for any claim that the finding of guilt was unwarranted or the penalty unjust; IV. specify the desired remedy; V. provide additional evidence or line or argument not previously introduced that might affect the outcome of the case; VI. include copies of all documentation and correspondence about the case.
 - b. On receipt of the appeal, the committee chair, in consultation with the Office of Judicial Programs, must convene a panel of three faculty and two student members, chaired by one of the faculty members. This panel may decide by majority vote whether to conduct a hearing. If the panel decides that no hearing is warranted, the appeal is denied and

the case is closed when written notice of the denial, including the rationale, has been sent to the student, instructor, dean of the college in which the course is offered, dean of the college in which the student is enrolled, and Office of Judicial Programs. If the panel deems a hearing is warranted, the Office of Judicial Programs must, in a timely manner, arrange a hearing to accommodate the schedules of the student, instructor, and dean, as well as any other parties involved, all of whom must be notified in writing of the date, time, and place of the hearing, as described below.

- I. The administrative procedure is not adversarial; the formal rules of evidence do not apply.
- II. Witness may be called by any of those involved.
- III. The person bringing the appeal and the person whose decision is under appeal may be accompanied by an advisor from within the University who may consult with but not speak on behalf of the advisee or otherwise participate directly in the proceedings unless given explicit permission by the chair of the panel.
- IV. A written record of the hearing must be prepared in the form of summary minutes with relevant attachments and must be provided to those involved upon written request. In addition, a tape recording of the hearing must be made a part of the permanent record.
- V. Within seven calendar days of the hearing the panel must decide by majority vote, based on the available evidence whether to uphold the decision(s) under appeal and must send written notice of the decision, specifying the numerical vote, to the student, instructor, dean of the college or school offering the courses, dean of the college or school in which the student is enrolled, and Office of Judicial Programs. The dean of the college offering the course must see that the student's record is amended if necessary.
- VI. If the panel overturns the decision(s) of Step 2, whether by charging the finding of guilt or by imposing, reinstating, or modifying a penalty, the panel's notice must summarize the evidence they considered and provide a rationale for the decision.
- VII. In an appeal by a student, the panel may not impose a penalty more severe than that imposed or upheld by the dean at Step 2; in an appeal by an instructor, the panel may not impose a penalty more severe than that imposed by the instructor at Step 1.

Step 4. President's Level.

The student or the instructor may appeal decisions of the university committee on student rights and responsibilities to the president or president's designee. Such appeals must I. be made in writing within 30 calendar days of notice of the decision of the committee on student rights and responsibilities; II. state specific grounds for any claim that the committee's decision was faculty or unjust; and III. specify the desired remedy. On receipt of the appeal, the president or president's designee will decide whether or not to hear the appeal. The decision of the president or of the president's designee is final.

Graduate Admission and Policies

Health Sciences Center Graduate Council

The Health Sciences Center graduate council advises the vice president for Health Sciences. In this role the Council monitors and administers the graduate studies policies of the schools located at the Health Sciences Center.

Application and Admission

Prospective graduate students are urged to initiate application for admission as early as possible. The first step of a student interested in a degree program should be to ask for information from the department, division, school, or college offering the program desired; the reply to such an inquiry will include instructions for applying to the particular program.

In all cases, application must be made for admission to graduate study on standard forms provided by the WVU Office of Admissions and Records. The completed form is to be returned to the Office of Admissions and Records, and must be accompanied by payment of a nonrefundable special service fee of \$45.00. Applicants must at the same time request the registrar or records office of the college send an official transcript directly to the Office of Admissions and Records. If other institutions have been attended in the course of undergraduate or graduate study, transcripts should be requested from them as well. No one is admitted to graduate study who does not hold a baccalaureate degree.

If the applicant meets the minimum admission requirements of WVU, a copy of the application is forwarded to the faculty of the program of interest. Any graduate degree program is permitted to set admission requirements which go beyond the minimum admission standards of the University. No one can pursue an advanced degree at WVU unless admitted to the appropriate degree program.

Reapplication

When a student graduates or completes the program for which he/she applied, the student must reapply and be readmitted before taking further course work at WVU. This policy assures that the University is informed of the student's objectives and that he/she is assigned an appropriate advisor. Students will be assessed the application fee for each new application.

When eight years have passed since initial course work, a student must reapply. The application fee will be assessed.

Classification of Graduate Students

Regular: A regular graduate student is a degree-seeking student who meets all the criteria for regular admission to a program of his/her choice. The student must possess a baccalaureate degree from a college or university, have a grade-point average of at least 2.75 (on a 4.0 scale), have met all the criteria established by the degree program, and be under no requirements to make up deficiencies.

Provisional: A student may be admitted as provisional by any unit when the student possesses a baccalaureate degree but clearly does not meet the criteria for regular admission. The student may have incomplete credentials, deficiencies to make up, or may have an undergraduate scholastic record which shows promise, but less than the 2.75 grade-point average required for regular admission.

Non-Degree: A non-degree student is a student not admitted to a program. Admission as a non-degree student does not guarantee admission to any course or program. To be admitted as a non-degree student, a student must only present evidence of a baccalaureate degree, however the student must obtain a 2.50 grade-point average on the first 12 credit hours of course work and maintain this average as long as enrolled. To be eligible to enter a degree program, the student must maintain a minimum of a 2.75 grade-point average on all course work taken since admission as a graduate student.

Reclassification

Provisional to Regular

- The provisions of a student's provisional status must be specified in the letter of admission.
- To be reclassified as a regular student, a student must meet the provisions stated in the letter of admission and achieve a minimum grade-point average of 2.75 on all course work taken during the provisional period. Individual degree programs may set higher grade-point average requirements.
- No later than the completion of the 18th credit hour, a unit must review the student's record and make a final decision on the student's admission. A student who has met the provisions of admission and achieved the required grade-point average will be reclassified as a regular student. A student who fails to meet the provisions of admission or who fails to achieve the required grade-point average will be suspended, but may be reinstated in order to transfer to another program or to non-degree status. The academic unit must notify the student and the Office of Admissions and Records of its decision.
- Upon notification by the appropriate academic unit, the Office of Admissions and Records will prohibit the registration of all provisional graduate students who have reached the maximum of 18 credit hours. Registration will not be permitted until the student is reclassified as a regular student, an exception is granted by an academic dean, or the student is transferred.
- A student may be admitted as a provisional graduate student more than one time, but not to the same graduate program.
- All credit hours taken since admission as a provisional graduate student or to be applied to a degree count in the 18 credit-hour limit, i.e., undergraduate or graduate credit, P/F, S/U, graded courses, credit by senior petition, and transfer credit.

Regular or Provisional to Non-Degree:

- Regular and provisional students may become non-degree students by choice. This includes students who fail to meet admission or academic standards or who withdraw voluntarily.
- To change a student to non-degree status, the advisor must process a Graduate Studies Transfer/Status form through the Health Sciences Center Graduate Programs Office.

Non-Degree to Regular or Provisional:

- Non-degree students who later wish to become degree candidates must transfer and present all the credentials required by the degree program. This requires the processing of a Departmental Decision form by the student's advisor through the HSC Graduate Programs Office.
- For admission to a degree program, a non-degree student must have achieved a minimum grade-point average of 2.75 on all course work taken since admission as a graduate student.

Graduate Record and Other Examinations

Many programs at WVU require Graduate Record Examination (GRE) scores from all applicants, but in no program are they the sole criterion for admission. Some programs require both the general aptitude and the appropriate advanced test before considering an applicant for admission. All departments in the School of Medicine and School of Pharmacy require that a student take the GRE test.

International Admission

West Virginia University is authorized under federal law to enroll nonimmigrant foreign nationals as students. International students wishing to enroll as undergraduate students at WVU must comply with the stated academic requirements for admission and with certain additional academic and nonacademic requirements.

April 1 has been established as the application deadline for the fall semester. International students applying for admission to West Virginia University must submit the following:

- Completed International Student Admission Application.
- Application service fee.
- Results of the Test of English as a Foreign Language (TOEFL). TOEFL results must be sent to WVU directly from the Educational Testing Service (ETS).
- Original or certified copies of an official academic record in original language of issue.
- Original or certified copy of official certification of degree in original language of issue.
- Official English translations of academic record and certification of degree.

International applicants who have completed high school in the United States may also be required to submit ACT or SAT results.

The above items should be sent to Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009 and must be received by the application deadline. Wherever possible, all application material's should be submitted at one time (TOEFL scores and official transcripts from United States institutions should be requested so that all material arrives at West Virginia University close to the same date). Incomplete applications cannot be guaranteed consideration for the desired semester.

Required Academic Credentials

Applicants must submit academic records from all secondary and post-secondary institutions attended regardless of whether or not grades were issued or credit was received. WVU requires that original or certified copies of the original academic documents from non-United States institutions be submitted. The required documents include the official academic record (showing course titles, dates taken, and grades received), and diploma(s) or certificate(s) showing degree awarded. These documents must be in the **original language of issue**. Official English translations must be included. Translations must be literal, word-for-word translations, and must indicate actual grades received, not an interpretation of the grades. Applicants who have studied in the United States are required to have the institution(s) in the United States send their official transcript directly to WVU.

Documents received by WVU cannot be returned to the applicant or copied for the applicant. It is therefore recommended that students who receive only one original copy of their credentials submit certified copies with their application.

English Language Proficiency

All applicants whose first language is not English must provide proof of English language proficiency. WVU uses the Test of English as a Foreign Language (TOEFL) as the measure of English language proficiency. A score of 213 on the computer-based TOEFL or 550 on the paper-based TOEFL is the minimum required. Applicants must make arrangements to take the TOEFL well in advance of the desired date of enrollment at WVU. Information about registration for the TOEFL can be obtained by writing to the Educational Testing Service (ETS), P.O. Box 6151, Princeton, NJ 08541-6151, USA, or by contacting the local office of the United States Information Service (USIS). Applicants who have received a high school diploma or a bachelor's degree in the United States need not submit TOEFL results.

In some cases, it may be possible to consider applications for students who lack adequate TOEFL scores, to enroll in the West Virginia University intensive English program. Such applicants must contact the intensive English program and directly and notify the Office of Admissions and Records of their intentions. Admission to the intensive English program does not guarantee admission to the University or to a specific program of study. Inquiries for the intensive English program should be directed to the Intensive English Program, Department of Foreign Languages, West Virginia University, P.O. Box 6298, Morgantown, WV 26506-6298

Financial Documents and Student Visa

International students requiring a form I-20 or IAP-66 for student or exchange visa must provide certification of adequate financial resources. Generally, the student must provide an official bank statement showing the availability of the appropriate funds. If a private sponsor will be the student's source of support, the sponsor must submit a letter showing intent to sponsor and an official bank statement showing the availability of the appropriate funds. Other forms of support could include sponsorship certifications from the student's government or sponsoring agency. In all cases, original or certified copies of financial/sponsorship documents must be submitted before the I-20 or IAP-66 can be issued.

Intrauniversity Transfers

To transfer from one school/department to another, a student may initiate a transfer request by contacting the Health Sciences Center Graduate Programs Office or his/her advisor. The advisor must contact the Health Sciences Center Graduate Programs Office, which will complete the transfer.

Credits

Credit toward a graduate degree may be obtained only for courses listed in the graduate catalog and numbered 200–499, in which the grade earned is A, B, C, or S. No course in which the grade earned is D, P, F, or U can be counted toward a graduate degree.

Employed Graduate Students

Graduate students will be required by their advisors to limit their credit loads in proportion to the outside service rendered and the time available for graduate study. In general, persons in full-time service to the University, or other employer, will be advised to enroll for no more than six hours of work in any one semester and those in half-time service for no more than 12 hours. Maximum credit loads may be less for employed graduate students in some academic colleges, schools, and departments.

Non-Degree Graduate Students

A non-degree graduate student may accumulate unlimited graduate credit hours, but if the student is later admitted to a degree program, the faculty of that program will decide whether or not any credit earned as a non-degree student may be applied to the degree. Under no circumstances may a non-degree student apply more than 12 hours of credit toward a degree.

Transfer or Transient Credit

To apply graduate-level credits from other institutions toward a master's degree at WVU, students must get permission from the individual schools or colleges. The standardized transient application form must be approved and signed by a unit chairperson or designate, prior to the student enrolling in the course(s) to be transferred to WVU. The school or department submits the approved form to the Health Sciences Graduate Programs Office for final approval and submission to the Office of Admissions and Records. It is the students responsibility to see that admissions and records gets an original transcript from the other institution. Only credit earned at institutions accredited at the graduate level may be transferred.

Graduate courses taken elsewhere will not be approved for transfer credit unless the transient application form was approved before enrolling in them. When a school or department approves the form, it is sent to the Health Sciences Center Graduate Programs Office for approval. A maximum of 12 semester hours from other institutions will be accepted for credit at WVU in master's programs requiring 30 to 41 semester hours. Eighteen semester hours will be accepted for master's degree programs requiring 42 or more semester hours. Individual graduate programs may accept fewer credit hours.

Time Limits

Master's Degree: All requirements for a master's degree must be completed within eight years preceding the student's graduation.

Doctoral Degree: The doctorate is a research or performance degree and does not depend on the accumulation of credit hours. The three requirements of the degree are admission to candidacy, residency, and completion and defense of the dissertation. The degree signifies that the holder has the competence to function independently at the highest level of endeavor in the chosen profession. Hence, the number of years involved in attaining or retaining competency cannot be readily specified. Rather, it is important that the doctoral student's competency be assessed and verified in a reasonable period of time prior to conferral of the degree.

The qualifying examination is the method of assessing whether the student has attained sufficient knowledge of the discipline and supporting fields in order to undertake independent research or practice. It is expected that the examination will occur after all course work has been completed and language or other requirements satisfied, and it consists of a series of examinations covering all areas specified in the plan of study. After the component parts of the qualifying examination have been successfully passed, the student is admitted to candidacy for the degree. It is sometimes called the candidacy examination because no one can be called a doctoral candidate until this first requirement for the degree has been met.

Because the qualifying examination attests to the academic competence of the student who is about to become an independent researcher or practitioner, the examination should not precede the degree by too long a period of time. Consequently, doctoral candidates are allowed no more than five years in which to complete remaining degree requirements. In the event a student fails to complete the doctorate within five years after admission to candidacy, an extension of time can be obtained only by repeating the qualifying examination, and meeting any other requirements specified by the student's committee.

Contractual Nature of Graduate Study

The student's rights, privileges, obligations, and responsibilities are contained in the graduate catalog, the plan of study, and, if research is one of the degree program requirements, the prospectus. Although not contracts in the formal legal sense, they are agreements between the University and a student for the accomplishment of planned educational goals.

Plan of Study

The plan of study is submitted within the first academic year (18 hours for a master's and 30 hours for doctorate/after thesis committee for nursing) to the Health Sciences Center Graduate Programs Office. The plan of study is subject to approval and is made a part of the student's record. It then becomes a formal agreement between student and program faculty as to the conditions which must be met for completion of the degree requirements. Any subsequent changes in plan of study (or prospectus) can be made only through mutual agreement, with a memorandum of changes sent to the Health Sciences Center Graduate Programs Office.

Records

The Health Sciences Center Graduate Programs Office maintains all records for monitoring student progress and for certifying students for graduation. Among these records are plans of study (subject to chairperson of Health Sciences Center Graduate Council's approval); graduate committees (subject to school dean's or designate's approval and approval of the Health Sciences Center Graduate Programs Office); grades and grade modifications.

Grading

Pass/fail grading is not applicable to the course work for a graduate degree. A graduate student may register for any course (1–499) on a pass/fail basis only if the course involved is not included in the student's plan of study and does not count toward a graduate degree. The selection of a course for pass/fail grading must be made at registration and may not be changed after the close of the registration period. A student who, having taken a course on a pass/fail basis, later decides to include the course as part of a degree program must re-register for the course on a graded (A, B, C, D, or F) basis.

Incompletes

The grade of I is given when the instructor believes the course work is unavoidably incomplete or that a supplementary examination is justifiable. The grade of I must be removed within one academic year or made a permanent incomplete. Grade modification forms are to be signed by the instructor of the course and then forwarded to the Health Sciences Center Graduate Programs Office for processing.

Grade changes other than I to a letter grade must be accompanied by an explanatory memo.

Dissertation Procedures

Procedural rules for dissertations and theses are found in the *WVU Graduate Catalog*.

Dismissal

Dismissal from a graduate or professional program may be based on program and/or professional performance standards other than cumulative grade-point average. Reasons must be based on catalog and other written documents describing academic and professional performance standards and expectations.

Procedures

1. Counseling by departmental committee or representative as soon as possible after discovery of problem.
2. Second counseling by departmental committee or representative after opportunity to improve if performance is not changed sufficiently.
3. Formal review of student status by department or program committee. The formal review will result in one of the following actions:
 - Student retained or recommended for dismissal.
 - Counseling or remediation steps required as a condition of retention.
 - Appeals available if dismissal recommended.
4. A dismissal decision by the dean of the student's school or college may be appealed to the University conduct/appeals committee which will hold a hearing using the following procedures:
 - The student may be advised by a person of his/her choice to assure due process protection not to affect the outcome of the proceedings. The advisor may consult with the student but shall not speak on behalf of the student or participate directly unless granted specific permission by the University conduct/appeals committee.
 - The formal rules of evidence do not apply.
 - The administrative procedure is not adversarial in nature.

- Witnesses may be presented and examined under oath.
 - An accurate record of the procedure is to be kept. The student may request a transcript of the proceedings at the student's expense.
 - An academic appeals committee has the right to counsel in those proceedings in which the student has retained counsel. Such counsel may not speak on behalf of the institution or otherwise participate directly in the proceedings.
5. A decision for dismissal must be reviewed by the appropriate academic vice president who may confirm or remand the recommendation with specific instructions.
 6. Recommendation for dismissal confirmed by the appropriate academic vice president may be appealed to the President. The decision of the president is final.

Students' Committees

Doctoral dissertation committees will consist of no fewer than five members, the majority of whom, including the chairperson, will be regular graduate faculty. No more than one person may be a non-member. At least one member of every doctoral committee must be from a department other than the one in which the student is seeking a degree.

Master's committees of programs requiring a thesis will consist of no fewer than three members, the majority of whom will be regular graduate faculty, including the chairperson. No more than one person may be a non-member.

Master's committees of programs not requiring a thesis will consist of no fewer than three members, one of which must be a regular graduate faculty member. No more than one person may be a non-member, and the non-member cannot chair or advise.

Committee approval must be obtained prior to the second semester for a master's degree and prior to the fourth semester for the doctorate. Committee approval for the nursing program is after the third semester.

Committee Approval

All graduate committees are subject to the approval of the school dean or designate and the Health Sciences Center Graduate Programs Office.

Fees

All West Virginia University fees are subject to change. All fees are due and payable to the controller on the days of registration. Students must pay fees before registration is accepted. Completion of arrangements with the Controller's Office for payment from officially accepted scholarships, loan funds, grants, or contracts shall be considered sufficient for acceptance of registration.

All students are expected to register on days set apart for registration at the beginning of each semester or summer session of the University. No student will be permitted to register at the University after the eighth day of a semester or the fourth calendar day of the summer sessions or a single summer session. Days are counted from the first day of registration.

Estimated Expenses for Health Sciences Center Programs

These estimated expenses are accurate as of March 1, 1999 and are subject to change. For current accurate tuition costs, please call Admissions and Records at 1-800-344-WVU1. Tuition and registration fees are the same for both semesters. Tuition and registration fees are per semester; other fees are per year.

School and Division	Tuition and Registration*		Instruments	Lab coats, Uniforms, etc.	Books	TOTALS	
	Resident	Nonresident				Residents	Nonresidents
*Dentistry							
First Year	\$2,597.00	\$6,939.00	\$6,060.00	\$300.00	\$1,800.00	\$10,757.00	\$15,099.00
First Summer	475.00	902.50	2,900.00	0.00	400.00	3,775.00	4,202.50
Second Year	2,597.00	6,939.00	3,612.00	300.00	1,200.00	7,709.00	12,051.00
Second Summer	475.00	902.50	1,806.00	0.00	100.00	2,381.00	2,808.50
Third Year	2,597.00	6,939.00	1,000.00	0.00	600.00	4,197.00	8,539.00
Third Summer	475.00	902.50	500.00	0.00	0.00	975.00	1,402.50
Fourth Year	2,597.00	6,939.00	1,200.00	0.00	425.00	4,222.00	8,564.00
Dental Hygiene							
Freshman	1,524.00	4,671.00	285.00	25.00	510.00	2,344.00	5,491.00
Sophomore	1,524.00	4,671.00	1,300.00	50.00	255.00	3,129.00	6,276.00
Junior	1,524.00	4,671.00	400.00	50.00	325.00	2,299.00	5,446.00
Senior	1,524.00	4,671.00	200.00	50.00	225.00	1,999.00	5,146.00
Medicine							
First Year*	4,512.00	11,262.00	600.00	642.00	950.00	6,704.00	13,454.00
First Year Summer	76.00	76.00	0.00	0.00	120.00	5,512.00	12,262.00
Second Year*	4,512.00	11,262.00	0.00	200.00	800.00	5,262.00	12,012.00
Third Year	4,512.00	11,262.00	0.00	100.00	650.00	342.00	342.00
Third Year Summer	142.00	142.00	0.00	200.00	0.00	5,012.00	11,762.00
Fourth Year	4,512.00	68.00	0.00	0.00	500.00	0.00	0.00
HSC Graduate Programs							
Master of Public Health	1,636.00	4,864.00	0.00	0.00	0.00	0.00	0.00

Estimated Expenses for Health Sciences Center Programs (continued)

School and Division	Tuition and Registration*		Instruments	Lab coats, Uniforms, etc.	Books	Totals	
	Resident	Nonresident				Residents	Nonresidents
Medical Technology							
Junior	\$1,524.00	\$4,671.00	\$212.00	\$250.00	\$597.00	\$2,583.00	\$5,370.00
Summer	320.00	740.00	0.00	250.00	175.00	745.00	1,165.00
Senior	1,524.00	4,671.00	0.00	265.00	0.00	1,789.00	4,936.00
Physical Therapy							
First Year	1,524.00	4,671.00	100.00	0.00	600.00	2,224.00	5,371.00
Summer	240.00	555.00	0.00	50.00	0.00	290.00	605.00
Second Year	1,524.00	4,671.00	0.00	0.00	500.00	2,024.00	5,171.00
Summer	480.00	1,110.00	0.00	0.00	0.00	480.00	1,110.00
Third Year	1,909.00	5,400.00	0.00	0.00	400.00	2,309.00	5,800.00
Summer	480.00	1,110.00	0.00	0.00	0.00	480.00	1,110.00
Occupational Therapy							
Summer	400.00	925.00	25.00	75.00	150.00	650.00	1,175.00
Year One	1,524.00	4,671.00	100.00	0.00	950.00	2,574.00	5,721.00
Year Two	1,524.00	4,671.00	100.00	0.00	950.00	2,574.00	5,721.00
Summer	240.00	555.00	0.00	0.00	0.00	240.00	555.00
Year Three	1,909.00	5,400.00	100.00	0.00	350.00	2,359.00	5,580.00
Nursing							
Sophomore	1,524.00	4,671.00	75.00	250.00	750.00	2,599.00	5,746.00
Junior	1,524.00	4,671.00	0.00	50.00	300.00	1,874.00	5,021.00
Senior	1,524.00	4,671.00	0.00	0.00	300.00	1,824.00	4,971.00
*Pharmacy							
First year-Undergrad.	2,246.00	6,605.00	0.00	0.00	630.00	2,876.00	7,235.00
Second year-Undergrad.	2,246.00	6,605.00	0.00	0.00	630.00	2,876.00	7,235.00
Third year-graduate	2,246.00	6,605.00	50.00	0.00	630.00	2,926.00	7,285.00
Fourth year-summer	666.00	1,548.00	0.00	0.00	125.00	791.00	1,673.00
Fourth year-graduate	2,246.00	6,605.00	0.00	0.00	630.00	2,876.00	7,235.00

*Note: First, second, and third year Physical Therapy and Occupational Therapy have additional notebook computer lease fee of \$1,500.00, and computer software lease fee of \$200.00.

Any student failing to complete registration on regular registration days is subject to the Late Registration Fee of \$30.00. Registering students pay the fees shown in the fee charts, plus special fees and deposits as required. No degree is conferred upon any candidate and no transcripts are issued to any student before payment is made of all tuition, fees, and other indebtedness to any unit of the University. It is the policy of West Virginia University to place on restriction students who have outstanding debts to a unit or units of the University. The restriction may include, but is not limited to, the withholding of a student's registration, a student's diploma, or a student's transcript.

Special Fees

Application for Undergraduate Admission

(Resident)	\$15.00
(Nonresident)	35.00
Application for Admission (Dentistry and Medicine)	45.00
Application for Admission (Law or Graduate Studies)	45.00
Diploma Replacement	20.00
Examination for Advanced Standing	35.00
Examination for Entrance Credit, per unit	1.00
General Educational Development Tests (high school level)	15.00
(If the applicant applies for admission to and registers in WVU within twelve months of the date of qualifying for the test, a \$10.00 credit shall be established for the applicant.)	
Graduation	30.00
(Payable by all students at the beginning of the semester or session in which they expect to receive their degrees.)	
Late Registration (non refundable)	30.00
Professional Engineering Degree (includes \$20 Graduation Fee)	35.00
Program Reactivation Fee (Graduate Students)	45.00
Reinstatement of Student Dropped from the Rolls	50.00
Student Identification Card Replacement	10.00
Student's Record Fee	5.00
Official Transcript	5.00
Official Letter	5.00
(Statement of Degree Letter, Grade-Point Average Letter)	8.00
Priority Service (Transcript/Letter)	8.00

Financial Aid

Students interested in applying for financial aid need to complete a Free Application for Federal Student Aid (FAFSA). This form is the application for all major federal student aid programs and must be received at the federal processing center by March 1st for applicants to receive maximum consideration.

For the Summer session(s) a separate WVU financial aid application is also required. Forms are available in the Financial Aid Offices in the Mountainlair, the Health Sciences Center and the Law School.

Students can also complete a FAFSA on the Internet at <http://www.fafsa.ed.gov>. Instructions are available at University libraries and computer labs and in the Financial Aid offices.

For those students who filed a FAFSA for the previous year, a renewal application may be used. Renewal FAFSAs are mailed to students' home addresses to arrive by mid-January. Students who do not receive a renewal FAFSA by that time should contact the Financial Aid Office for a regular FAFSA or file using the web address above.

Fees for Extended Learning Courses

Fees for credit hours for off-campus courses are the same as those charged students enrolled in on-campus courses. Extended Learning students do not pay the Daily Athenaeum Fee, the Radio Station Fee, or the Mountainlair Construction Fee. However, all students must pay \$33.00 per credit hour for each Extended Learning course taken.

Laboratory Fees

Laboratory fees will be assessed to all students, full-time or part-time, undergraduate or graduate, for each lab section enrolled in and/or wait-listed. Some departments may also have additional/rental fees.

Non-Sufficient Funds Check Policy/Service Charge

Payments of tuition, fees, and other charges by check are subject to WVU's Non-Sufficient Funds Check Policy. A copy of the policy is available in the Bursar's Office. A service charge of \$15.00 is collected on each check returned unpaid by the bank upon which it was drawn. The service charge on unpaid returned checks is subject to change in accordance with state law.

Identification Card

An identification card is issued to each full-time student when fees are paid in full. Certain part-time students can be eligible for an identification card when the appropriate fees are paid in full. It admits the owner to certain University athletic events, various activities of student administration, Health Service, and Mountainlair. Confiscation will result from misuse. The University reserves the right to refuse reissuance of an identification card.

Summer Tuition and Fees

<i>Undergraduate Students</i>	<i>Resident</i>	<i>Nonresident</i>
Tuition, per semester hour	\$66.00	\$208.00
Daily Athenaeum Fee*	2.00	2.00
Radio Station Fee*	2.00	2.00
Health, Counseling, and Program Services Fee	36.00	36.00
Mountainlair Construction Fee, per six week summer session or any portion thereof*	19.00	19.00
Student Affairs Fee	10.00	10.00
Transportation Fee	17.00	17.00

*Fee required of all students. (Non refundable unless student withdraws officially before the close of general registration.)

Refund of Fees

A student who officially withdraws from the University or goes from full-time to part-time status within the refund period is eligible for a refund of tuition and fees. Every effort is made to process refunds within 30 days.

To withdraw from the University officially and receive a refund, a student must apply at the Office of Student Life in E. Moore Hall. Tuition, special fees, the optional health service fee, and certain miscellaneous fees are refundable based upon the date of withdrawal and student status.* Lab fees are refundable during the first week of classes only, based upon student status.* Miscellaneous fees that **are not refundable** include the application fee, transcript fee, graduation fee (if graduating), late registration/payment fee, and reinstatement fee.

Exceptions: Students entering the armed services of the United States may be granted full refund of refundable fees (but no course credit) if the call comes before the end of the first three-fourths of the semester. If the call comes after that, full credit for courses may be granted if the student has passing grades at the time of departure.

Students withdrawn due to catastrophic illness or death will be provided a refund as approved by the Dean of Student Life or his/her designee.

To receive a refund for a dropped course, a student must apply at the Office of Admissions and Records. If a student drops below full-time status (12 hours for undergraduates or nine for graduates), tuition, special, and certain miscellaneous fees are refundable based upon the date of the course drops. The optional health fee, application fee, transcript fee, graduation fee, late registration/payment fee, and reinstatement fee are not refundable.

Refund Schedules

Fall/Spring Semesters

Refund Period	BOT	HEA	Refund Period	BOT	HEA
1st Week	90%	90%	5th Week	50%	60%
2nd Week	90%	80%	6th Week	50%	60%
3rd Week	70%	80%	7th/8th Week	—	50%
4th Week	70%	70%	9th Week	—	40%
Subsequent Weeks	0	0			

Refunds for summer sessions are published in the respective *Schedules of Courses*.

***Note:** Students who are enrolled for their first semester at WVU or who received a full refund for the previous semester and who received Title IV aid receive refunds according to federal regulations, which require refunds to be figured using both state (BOT Series #22) and statutory pro rata (Higher Education Amendments of 1992) calculations. After figuring both refunds, the calculation that provides the larger refund is given.

Residency Policy

Classification Of Students for Admission and Fee Purposes

Section 2. Classification for Admission and Fee Purposes

2.1 Students enrolling in a West Virginia public institution of higher education shall be assigned a residency status for admission, tuition, and fee purposes by the institutional officer designated by the president. In determining residency classification, the issue is essentially one of domicile. In general, the domicile of a person is that person's true, fixed, permanent home and place of habitation. The decision shall be based upon information furnished by the student and all other relevant information. The designated officer is authorized to require such written

documents, affidavits, verifications, or other evidence as is deemed necessary to establish the domicile of a student. The burden of establishing domicile for admission, tuition, and fee purposes is upon the student.

2.2 If there is a question as to domicile, the matter must be brought to the attention of the designated officer at least two weeks prior to the deadline for the payment of tuition and fees. Any student found to have made a false or misleading statement concerning domicile shall be subject to institutional disciplinary action and will be charged the nonresident fees for each academic term theretofore attended.

2.3 The previous determination of a student's domiciliary status by one institution is not conclusive or binding when subsequently considered by another institution; however, assuming no change of facts, the prior judgment should be given strong consideration in the interest of consistency. Out-of-state students being assessed resident tuition and fees as a result of a reciprocity agreement may not transfer said reciprocity status to another public institution in West Virginia.

Section 3. Residence Determined by Domicile

3.1 Domicile within the state means adoption of the state as the fixed permanent home and involves personal presence within the state with no intent on the part of the applicant or, in the case of a dependent student, the applicant's parent(s) to return to another state or country. Residing with relatives (other than parent(s)/legal guardian) does not, in and of itself, cause the student to attain domicile in this state for admission or fee payment purposes. West Virginia domicile may be established upon the completion of at least twelve months of continued presence within the state prior to the date of registration, provided that such twelve months' presence is not primarily for the purpose of attendance at any institution of higher education in West Virginia.

3.2 Establishment of West Virginia domicile with less than twelve months' presence prior to the date of registration must be supported by evidence of positive and unequivocal action. In determining domicile, institutional officials should give consideration to such factors as the ownership or lease of a permanently occupied home in West Virginia, full-time employment within the State, paying West Virginia property tax, filing West Virginia income tax returns, registering of motor vehicles in West Virginia, possessing a valid West Virginia driver's license, and marriage to a person already domiciled in West Virginia. Proof of a number of these actions shall be considered only as evidence which may be used in determining whether or not a domicile has been established.

3.3 Factors militating against the establishment of West Virginia domicile might include such considerations as the student not being self-supporting, being claimed as a dependent on federal or state income tax returns or the parents' health insurance policy if the parents reside out of state, receiving financial assistance from state student aid programs in other states, and leaving the state when school is not in session.

Section 4. Dependency Status

4.1 A dependent student is one who is listed as a dependent on the federal or state income tax return of his/her parent(s) or legal guardian or who receives major financial support from that person. Such a student maintains the same domicile as that of the parent(s) or legal guardian. In the event the parents are divorced or legally separated, the dependent student takes the domicile of the parent with whom he/she lives or to whom he/she has been assigned by court order. However, a dependent student who enrolls and is properly classified as an in-state student maintains that classification as long as the enrollment is continuous and that student does not attain independence and establish domicile in another state.

4.2 A nonresident student who becomes independent while a student at an institution of higher education in West Virginia does not, by reason of such independence alone, attain domicile in this state for admission or fee payment purposes.

Section 5. Change of Residence

5.1 A person who has been classified as an out-of-state student and who seeks resident status in West Virginia must assume the burden of providing conclusive evidence that he/she has established domicile in West Virginia with the intention of making the permanent home in this state. The intent to remain indefinitely in West Virginia is evidenced not only by a person's statements, but also by that person's actions. In making a determination regarding a request for change in residency status, the designated institutional officer shall consider those actions referenced in Section 2 above. The change in classification, if deemed to be warranted, shall be effective for the academic term or semester next following the date of the application for reclassification.

Section 6. Military

6.1 An individual who is on full-time active military service in another state or foreign country or an employee of the federal government shall be classified as an in-state student for the purpose of payment of tuition and fees, provided that the person established a domicile in West Virginia prior to entrance into federal service, entered the federal service from West Virginia, and has at no time while in federal service claimed or established a domicile in another state. Sworn statements attesting to these conditions may be required. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

6.2 Persons assigned to full-time active military service in West Virginia and residing in the state shall be classified as in-state students for tuition and fee purposes. The spouse and dependent children of such individuals shall also be classified as in-state students for tuition and fee purposes.

Section 7. Aliens

7.1 An alien who is in the United States on a resident visa or who has filed a petition for naturalization in the naturalization court, and who has established a bona fide domicile in West Virginia as defined in Section 3 may be eligible for in-state residency classification, provided that person is in the State for purposes other than to attempt to qualify for residency status as a student.

Political refugees admitted into the United States for an indefinite period of time and without restriction on the maintenance of a foreign domicile may be eligible for an in-state classification as defined in Section 3. Any person holding a student or other temporary visa cannot be classified as an in-state student.

Section 8. Former Domicile

8.1 A person who was formerly domiciled in the state of West Virginia and who would have been eligible for an in-state residency classification at the time of his/her departure from the state may be immediately eligible for classification as a West Virginia resident provided such person returns to West Virginia within a one-year period of time and satisfies the conditions of Section 3 regarding proof of domicile and intent to remain permanently in West Virginia.

Section 9. Residency Decisions/Appeals

Following is the process for initially determining residency for tuition purposes and how students appeal if they disagree with those decisions. Initial residency decisions are made at the admission level. Any questionable decisions are referred to the designated institutional official who determines whether the student meets the residency requirements or additional information is needed to make the decision. If additional information is needed, the student is requested to submit further documentation. If a student feels he/she has been improperly classified as a nonresident for tuition purposes, they should request an application for classification as a resident student at West Virginia University. To request this application write: Residency Officer, Office of Admissions and Records, P.O. Box 6009, Morgantown, WV 26506-6009, or call (304) 293-2121.

Once this application and supporting documents are received, a decision is made by the designated institutional official. If the student meets the requirements as outlined by the Board of Trustees' Policy Bulletin #34, the student is granted residency for the upcoming semester. If the student does not meet the necessary requirements, the student is denied in-state residency. If denied, the student has the option of appealing the decision to the WVU Council on Admissions. The council consists of faculty and student representatives, and whose number shall be at least three. The student representative(s) shall be appointed by the president of West Virginia University Student Administration while the faculty representative(s) shall be selected by the University Faculty Senate. The student contesting a residency decision shall be given the opportunity to appear before the institutional committee on residency appeals.

If the council overturns the initial denial, the student becomes a resident for the semester in question. Should the council uphold the original denial, the student has the option of appealing to the president of WVU. The president, again, may either uphold the original denial or overturn the decision of the council.

Residency appeals shall end at the institutional level.

School of Dentistry

Robert Hornbrook, D.D.S., Interim Dean.

William R. McCutcheon, D.D.S., Associate Dean, Academic and Postdoctoral Affairs.

David T. Puderbaugh, D.D.S., Assistant Dean, Clinical Affairs and Facilities.

James E. Overberger, D.D.S., Associate Dean, Continuing Education.

Frank H. Stevens, D.D.S., Assistant Dean, Alumni /Public Affairs and Recruitment.

Degrees Offered:

D.D.S. in Dentistry

M.S. in Dental Specialties

M.S. in Dental Hygiene; B.S. in Dental Hygiene

Historical Background

The School of Dentistry was established by an act of the West Virginia Legislature on March 9, 1951, and the first class began studies in September, 1957. The 23 members of that class graduated in 1961, receiving the first dental degrees awarded in West Virginia. More than 200 students are now enrolled in the accredited dental program. In September, 1961, the first students were enrolled in the school's degree program in dental hygiene and were graduated in 1965.

Mission

- To provide the people of West Virginia with an oral health center for education, research, and service activities.
- To contribute to and improve the dental health of all people, especially the citizens of West Virginia.

The School of Dentistry of West Virginia University offers degrees of doctor of dental surgery, masters of science in dental specialties and dental hygiene, and bachelor of science in dental hygiene. The Department of Oral and Maxillofacial Surgery offers one four-year residency. Seven general practice residencies and three advanced education in general dentistry residencies are also offered. Programs leading to the master of science and doctor of philosophy degrees are available in the associated basic sciences. Continuing education courses for dentists and auxiliaries are offered throughout the year on a wide variety of dental topics.

Accreditation

All programs are accredited by the Commission on Dental Accreditation of the American Dental Association.

Administration

Administration of the School of Dentistry is the responsibility of the dean. He is aided in this function by two associate deans, two assistant deans, three directors, and the clinical and Health Sciences Center chairpersons. This administrative group, the faculty council, serves in an advisory capacity to the dean in carrying out the established policies of the School of Dentistry and of the University.

Dental Clinic

Clinical training and experience constitute a major part of the curriculum for dental and dental hygiene students. Facilities for dental and dental hygiene students include 160 treatment cubicles and all necessary related laboratories. The students treat their assigned patients under close supervision of faculty and receive practical experience while rendering service to thousands of patients annually.

Books and Instruments

Dental students are required to obtain necessary textbooks for the scheduled courses and special instruments for use in the various laboratories and clinics. Lists of approved instruments and books will be provided at the time of registration, and these supplies will be made available through University services. Official authorization is essential in the purchase of all instruments and books used in dental courses. All dental students must maintain a library of required textbooks through graduation. Used instruments and equipment are not acceptable.

Organizations

American Student Dental Association. Predoctoral and advanced education dental students are eligible to become members of the American Student Dental Association. Membership provides for student membership in the American Dental Association.

American Association of Dental Research. All dental and auxiliary students, including advanced education students, are eligible to become student members of the American Association of Dental Research during the period of enrollment in the School of Dentistry.

American Association of Dental Schools. All dental and auxiliary students, including advanced education students, are eligible to become student members of the American Association of Dental Schools during the period of enrollment in the School of Dentistry.

American Association of Women Dentists. The objectives and purposes of the West Virginia University School of Dentistry Chapter of the American Association of Women Dentists are to offer opportunities for personal growth through association with women in our profession, support the goals of the American Association of Women Dentists, aid in the advancement of women in dentistry, promote professional support and cooperation among its members, and promote the fundamentals of good oral health.

Academy of Dentistry for the Handicapped. The Academy of Dentistry for the Handicapped is an international organization for dental students and hygiene students interested in management and treatment of special care patients. Community services are provided by assisting with Special Olympics and presenting disability awareness programs to area grade schools. Guest speakers are sponsored on topics such as: "Managing the Hearing Impaired Patient in the Dental Office," "Use of Restraint in Treating Handicapped Patients," and "Child Abuse and Neglect in Special Needs Children."

WVU School of Dentistry Alumni Association. In a series of meetings held during May, 1961, the first senior class of the School of Dentistry established the WVU School of Dentistry Alumni Association. The association promotes the educational program of the School of Dentistry. Full membership is

extended to all graduates of the school, and associate memberships are available to others interested in the aims of the association.

Omicron Kappa Upsilon. On February 6, 1961, the Alpha Beta Chapter of Omicron Kappa Upsilon, national honorary dental society, was chartered at the School of Dentistry. Student membership is limited to 12 percent of each senior class. Candidates are from the academically superior 20 percent.

Dental Fraternities. Chapters of two national dental fraternities, Delta Sigma Delta and Psi Omega, are active at the School.

The American Dental Hygienists' Association is the official organization representing the dental hygiene profession. Student dental hygienists have the opportunity of student membership in the association.

Sigma Phi Alpha is the national dental hygiene honorary society. Student membership is limited to 10 percent of each graduating class. Candidates are selected on the basis of scholarship, character, and potential as a dental hygienist.

Doctor of Dental Surgery (D.D.S.)

The profession of dentistry offers many career opportunities. In addition to the general practice of dentistry, specialty practice areas may be pursued by further study. The fields of dental education and research provide the opportunity for satisfying and interesting careers. Men and women entering the dental health care delivery system find that they play an important role in the exciting and challenging world of the modern health sciences.

Because of the large number of applicants and limited openings available, preference in admissions is given to qualified West Virginians although outstanding nonresident applicants are considered. Nonresident applicants should have a grade-point average of 3.0 or above and an average score on the Academic and PAT sections of the Dental Admission Test of at least 15–15. Economically or culturally disadvantaged students (especially if they are West Virginia residents) are encouraged to apply.

Admission Requirements

Admission to the WVU School of Dentistry is contingent upon satisfactory completion of all admission requirements, appropriate completion of all application instructions, submission of all transcripts from each college attended, personal interview, and satisfactory completion of all courses taken before the time of registration in dental school (includes courses taken during the summer session immediately preceding initial enrollment).

Application for admission in the fall of 2000 should be made promptly upon completion of the 1998-99 school year, even if the applicant has not completed all the requirements as listed.

A candidate for the D.D.S. degree must have abilities and skills of five varieties including observation; communication; motor; conceptual; integrative and quantitative; and behavioral and social. Technological compensation can be made for some handicaps in certain of these areas, but a candidate should be able to perform in a reasonably independent manner. For further details consult the WVU School of Dentistry Technical Standards Document available in the School of Dentistry Student Affairs Office.

Applicants for admission must present evidence of having successfully completed three or more academic years of work in liberal arts in an accredited college. The prerequisites for admission include:

	Semester Hrs.
English composition and rhetoric, or equivalent	6
Zoology or biology (with laboratory)	8
Inorganic chemistry (with laboratory)	8
Organic chemistry (with laboratory)	8
Physics (with laboratory)	8

Courses in comparative anatomy, embryology, and biochemistry are strongly recommended. In addition, courses in the humanities and the social sciences are suggested in order to acquire a broadened intellectual background for both the study and practice of dentistry.

The School of Dentistry participates in the American Association of Dental Schools Application Service (AADSAS). All applications are processed by that organization. Application request cards are available at the Office of Admissions and Records, 1170 Health Sciences North, P.O. Box 9815, Robert C. Byrd Health Sciences Center of WVU, Morgantown, WV 26506-9815. Request cards should be submitted to AADSAS as promptly as possible. The deadline for submission of a completed AADSAS application to the AADSAS office, for admission to the West Virginia University School of Dentistry, is February 1. This deadline is deliberately and explicitly discussed in the AADSAS instruction booklet; applicants should review them carefully. Since deadline dates are so important, you are strongly urged to give this part of the application procedure your strict attention.

Each applicant is required to complete the Dental Admission Test satisfactorily. The test should be taken in April before making application in June. This test is given at testing centers throughout the United States and its possessions, and in Canada. Application cards may be secured by writing to: Division of Testing, Council on Dental Education, 211 E. Chicago Ave., Chicago, IL 60611.

Final acceptance of a student is contingent upon satisfactory completion of all requirements.

Degree Requirements

Candidates for graduation are recommended by the faculty of the School of Dentistry to the Board of Trustees for its approval and for the conferring of the degree of doctor of dental surgery (D.D.S.), provided they fully meet the following conditions:

- Shall have been in regular attendance in the School of Dentistry for the academic period prescribed for each student.
- Shall have completed the prescribed curriculum for each of the academic sessions.
- Shall have shown good moral character and shall have demonstrated a sense of professional responsibility in the performance of all assignments as a student.
- Shall have met in full all financial obligations to the University.

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession.

Curriculum

The basic required courses in the curriculum are presented throughout eight semesters and four summer sessions. However, students may qualify to receive their diploma at the May convocation of their fourth year. During this time all students are enrolled in courses designed primarily to prepare them for the general practice of dentistry. Throughout the program overall student progress is continually monitored by the Committee on Academic Standards. Upon satisfactory completion of the first semester of the third year, the student is provided the opportunity to indicate a specific interest in a fourth-year curriculum track. Available tracks are the general practice track, basic biologic science track, specific clinical interest track, and rural practice track. Upon satisfactory completion of the second semester of the third year, the faculty advisor and the student prepare a specific individualized curriculum for the fourth year. This aspect of the dental curriculum provides the opportunity for the student to pursue areas of special interest through the appropriate track, while continuing to develop competency in all clinical disciplines. In addition to the required courses, fourth-year students are required to register for at least one hour of electives during each semester.

At the present time, a number of state boards of dentistry require evidence of participation in continuing education for license renewal. In addition, a significant number of state associations require similar evidence for continued membership in good standing. Consequently, fourth-year electives provide the opportunity for students to pursue areas of special interest and, at the same time, they serve as a means of encouraging students to continue their education throughout their professional careers.

The individualized curriculum developed by the student and faculty advisor must be approved by the associate dean for academic affairs. The student will pursue the approved curriculum through completion of the D.D.S. program. Additional requirements include participation in mock board examinations and one month of remote-site training by fourth-year students. Furthermore, students must satisfactorily complete all courses for which they have registered.

Promotion

At the end of each grading period (i.e., each academic semester or session) all students will have their individual progress reviewed by the academic standards committee convened for their class. The progress of each student in the curriculum is governed by a set of minimum acceptable performance standards upon which the academic standards committee bases its decisions.

The standards consist of three categories: scholastic performance; clinic utilization; and professional development. Scholastic performance requires that each student must earn a specified grade-point average to be promoted to the succeeding year. Clinic utilization requires that each student must utilize a specified percentage of available clinic time to demonstrate steady progress toward attainment of clinical competency. Professional development is an important component of the study of dentistry. The criteria for determining this development are based on the student's personal behavior and patient management.

These performance standards are explained in detail in the document entitled *WVU School of Dentistry Academic and Professional Standards*. All first-year students are presented this document prior to entering school and are required to acknowledge by their signature that they have read and accepted the conditions set by the material contained therein. At the completion of each academic term, following the Committee on Academic Standards meetings, the status of each student is reported to the dean and Faculty Council. The committee may recommend that a student be promoted unconditionally, be promoted on probation, be allowed to make up deficiencies, be given the opportunity to repeat the year, or be suspended or dismissed from further studies in the School of Dentistry. Final disposition in each case is the prerogative of the Committee on Academic Standards and the dean.

School of Dentistry Course Schedule

First Year

Didactic Courses	Hours	Sem. 1	Sem. 2	S
300 <i>Anesthesiology</i>	1			x
301 <i>Arts and Sciences of Dentistry</i>	1	x		
304 <i>Operative Dentistry</i>	4			x
305 <i>General Biochemistry</i>	4		x	
324 <i>Gross Anatomy</i>	7	x		
309 <i>Microanatomy and Organology</i>	5		x	
310 <i>Dental Anatomy and Occlusion</i>	6	x	x	
311 <i>Periodontics</i>	2			x
312 <i>Dental Materials</i>	3	x		
313 <i>Removable Prosthodontics</i>	3	x		
315 <i>Periodontics</i>	2	x	x	
317 <i>Removable Prosthodontics</i>	1		x	
318 <i>Oral Histology and Embryology</i>	2		x	
319 <i>Pediatric Dentistry</i>	1			x
320 <i>Community Dentistry</i>	1	x		
345 <i>Principles of Orthodontics</i>	1			x

Second Year Didactic Courses

300 <i>Anesthesiology</i>	1		x	
302 <i>Microbiology</i>	5	x		
303 <i>Oral Diagnostic Techniques</i>	2		x	
311 <i>Periodontics</i>	2	x		
322 <i>Operative Dentistry</i>	2	x		
321 <i>Endodontics</i>	2		x	
323 <i>Clinic Orientation</i>	0	x	x	
325 <i>Practice Management</i>	1			x
326 <i>Removable Prosthodontics</i>	1	x		
327 <i>Oral Radiology</i>	1	x		
328 <i>General Pathology</i>	5	x	x	
329 <i>Operative Dentistry</i>	2		x	
331 <i>Dental Anatomy and Occlusion</i>	2			x
332 <i>Periodontics</i>	1			x
334 <i>Removable Prosthodontics</i>	3		x	
335 <i>Pediatric Dentistry</i>	2	x	x	
336 <i>Fixed Prosthodontics</i>	7	x	x	
337 <i>Oral Diagnosis</i>	1			x
338 <i>Oral Pathology</i>	3		x	
339 <i>Oral Surgery</i>	1		x	
340 <i>Periodontics</i>	1		x	
341 <i>Removable Prosthodontics</i>	2			x

342 Periodontics	1		X	
343 Fundamentals of Physiology	5	x		
344 Diagnosis and Treatment Planning	1	x		
346 Orthodontic Technics	2			x
348 Operative Dentistry	1			x
354 Implantology	1			x
357 Fixed Prosthodontics	1			x
381 Patient Management	1			x
Second Year Clinical Courses				
375 Dental Practice Management	1-6			x
376 Removable Prosthodontics	1-6			x
377 Periodontics	1-6			x
380 Endodontics	1-6			x
383 Operative Dentistry	1-6			x
384 Oral Surgery	1-6			x
386 Pediatric Dentistry	1-6			x
387 Clinical Oral Diagnosis	1-6			x
389 Fixed Prosthodontics	1-6			x
396 Clinical Oral Radiology	1-6			x
Third Year Didactic Courses				
330 Community Dentistry	1		x	
347 Management of Medical/Dental Emergencies	1		x	
350 Removable Prosthodontics	1	x		
351 Dental Anatomy and Occlusion	1		x	
352 Community Dentistry	2	x	x	
353 Oral Pathology	2	x		
357 Fixed Prosthodontics	2	x	x	
359 Oral Surgery	2	x	x	
360 Pharmacology	4	x		
361 Pediatric Dentistry	1	x		
363 Periodontics	2	x	x	
365 Orthodontics	1		x	
366 Pediatric Dentistry	1		x	
369 Practice Management	1		x	
371 Practice Management	2	x		
374 Principles of Medicine	2	x		
Third Year Clinical Courses				
375 Practice Management	1-6	x	x	x
376 Removable Prosthodontics	1-6	x	x	x
377 Periodontics	1-6	x	x	x
380 Endodontics	1-6	x	x	x
381 Patient Management	1-6	x	x	x
383 Operative Dentistry	1-6	x	x	x
384 Oral Surgery	1-6	x	x	x
385 Orthodontics	1-6	x	x	x
386 Pediatric Dentistry	6	x	x	x
387 Clinical Oral Diagnosis	1-6	x	x	x
389 Fixed Prosthodontics	1-6	x	x	x
396 Clinical Oral Radiology	1-6	x	x	x
Fourth Year Didactic Courses				
356 Removable Prosthodontics	1	x		
358 Operative Dentistry	2		x	
362 Endodontics	1	x		
364 Pain and Anxiety Control	1	x		
378 Practice Management-Law	1	x		
379 Practice Management-Ethics	1		x	

Fourth Year Clinical Courses

375 Practice Management	1-3	x	x	x
376 Removable Prosthodontics	1-6	x	x	x
377 Periodontics	1-5	x	x	x
380 Endodontics	1-4	x	x	x
381 Patient Management	1-6	x	x	x
383 Operative Dentistry	1-8	x	x	x
384 Oral Surgery	1-3	x	x	x
385 Orthodontics	1-6	x	x	x
387 Clinical Oral Diagnosis	1-6	x	x	x
389 Fixed Prosthodontics	1-6	x	x	x
394 Community Dentistry	1	x	x	x
396 Clinical Oral Radiology	1-6	x	x	x
391 Special Topics	1-15	x	x	x

The relationship of the number of elective and/or required hours during the fourth year may vary, depending upon each student's progress.

Dental Hygiene

Barbara Komives, Director.

Degree: Bachelor of Science in Dental Hygiene

Dental hygiene, a division of the School of Dentistry, offers a four-year curriculum leading to a B.S. in dental hygiene. The program is, in part, based in the liberal arts, but it is also a thoroughly professional education. The format of the curriculum is not conventional, in that it includes courses from many academic disciplines. The program prepares students through classroom and practical experiences.

Program Goals

- Preparation of individuals to perform to the level of competency specified by the faculty, the state boards of dental examiners, and employers (those oral health services legally approved for a dental hygienist in any state, district, or territory of the United States). Presently these services include: observation, recording, prevention, treatment, education, and communication.
- Preparation of individuals capable of performing the clinical skills delegated to any allied dental personnel (excluding the dental laboratory technician).
- Preparation of dental hygienists to teach clinical skills and didactic information in allied dental education programs.
- Preparation of individuals capable of performing coordinative and administrative functions in public health, hospitals, and community-related areas in urban and rural settings.
- Preparation of dental hygienists who have a keen sense of social awareness and personal and professional ethics.
- Preparation of dental hygienists to continue their professional development beyond graduation through continuing education, advanced studies, self study, independent thought, and graduate endeavors.
- Preparation of dental hygienists who have the capability to understand and adapt to new developments and changes in science, technology, and practice of comprehensive health care.

- Provision of an educational foundation for advanced studies.
- Provision of the degree completion option to allow students holding an associates degree/certificate in dental hygiene to obtain a Bachelor of Science in Dental Hygiene.

Admission

To get application and reference forms, please write to the Division of Dental Hygiene, P.O. Box 9425, West Virginia University, Morgantown, WV 26506-9425, or to the Office of Admissions, Health Sciences Center, P.O. Box 9815, West Virginia University, Morgantown, WV 26506-9815. As soon as possible in the year preceding the year you want to enter the program, you should apply and complete the aptitude tests. Forms for the following year are available in September.

If you have no previous study in higher education, you will apply for admission as a freshman at WVU. You must have a diploma from an accredited high school or preparatory school, and we expect you to have these courses listed on your high school transcript:

English—4 units	Algebra—2 units	Plane geometry—1 unit
Biology—1 unit	Chemistry—1 unit	

We pay particular attention to scholastic achievement in science courses. We also expect applicants to rank in the upper one-half of their graduating class. Physical strength with the ability to sit and stand as required, fine precision bilateral manipulative hand/motor skills, adequate visual acuity, eye/hand/foot coordination and emotional stability are essential characteristics for individuals who wish to enter and continue in the dental hygiene program. They must meet other medical qualifications as required. Reasonable accommodation will be considered for students with special needs.

We require that you take the American College Testing Program examination or the Scholastic Aptitude Test. We ask for personal references, to be submitted on our reference form. All three references must be sent by the writer of the reference directly to the Division of Dental Hygiene. The Dental Hygiene Admissions Committee reviews all applications and may require you to come to the campus for a personal interview. If the committee requests an interview, you will receive a letter stating the date, time, and place of the interview. Competition for admission to our program is intense, and we give preference to residents of West Virginia.

Degree Completion Program

If you are a registered dental hygienist, we can admit you directly to the Division of Dental Hygiene as a full-time or part-time student. To be eligible for the degree completion program, you must have a certificate or associate degree from an accredited dental hygiene program. You can transfer lower division credits (see "Dental Hygiene Suggested Curriculum"). Your acceptance and placement in the program depends upon your academic record and upon the number of spaces available.

When you apply, we ask you to include complete records of previous study. In addition to an official transcript mailed to us by the registrar of your previous school, we ask you to include catalog descriptions of the courses

taken. If you are currently enrolled in a certificate or associate degree program, we ask that you include your program of study. You are responsible for the submission of complete records.

You can enter the degree completion program twice a year. Applications can be obtained after September 1 of the year preceding application to the program.

Requirements

To summarize the admission process for the degree completion program:

- Complete the accredited certificate/associate degree program in which you are currently enrolled or offer proof of a previously completed program.
- Present at least a 2.5 grade-point average for all college work at tempted. If your grade-point average is below our minimum, you can petition the Dental Hygiene Admissions Committee for special consideration.
- Successfully complete the Dental Hygiene National Board Examination and submit your score.
- Submit two letters of reference, one from the director of your previous program and one from a clinical instructor. If you have professional experience, substitute a letter from your employer for either of the above.

The Admissions Committee may ask you to come for a personal interview before they make a final decision on your application.

Dental Hygiene Academic Standards and Policies

At the end of every semester, the Dental Hygiene Committee on Academic Standards reviews the status of every student in the program. The committee recommends promotion, probation, or dismissal to the dean of the School of Dentistry.

If the students fulfill all course requirements, meet all professional standards, and have the necessary grade point averages, promotion is unconditional.

1. Students must maintain a cumulative and dental hygiene/science grade-point average of 2.0 or better.
2. A grade of "F" in dental hygiene/science course or failure to attain a 2.0 cumulative or dental hygiene/science grade point average in any semester will result in placing a student on probation.
3. Students on probation who do not raise their cumulative or dental hygiene/science grade point average to 2.0 or better after one semester, may be dismissed from the Dental Hygiene Program.
4. A student who receives a grade of D, F, or WU in a required dental hygiene/science course must repeat that course. Courses may only be repeated ONCE. Failure to earn a grade of C or better may result in dismissal from the Dental Hygiene Program.
5. A student may repeat only THREE dental hygiene/science courses throughout the course of the curriculum.
6. Dental hygiene/science pre-requisite courses in which students earn a grade of D, F, or WU must be repeated prior to the student's progression to the next course in that sequence.

The dental hygiene/science average is based on grades earned in these courses or their equivalents: Anatomy 101; Anatomy 109; Biology 2 and 4; Chemistry 11 and 12; Dentistry 300; Microbiology 26; Pathology 128 and 129; Pharmacology and Toxicology 160; Physiology 141; and all Dental Hygiene courses.

The Division of Dental Hygiene reserves the right to dismiss or require remedial work of any student who does not perform at a level of satisfactory for patient care.

Dental Hygiene Suggested Curriculum

First year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
ORIN 2D	1	BIOL 2	3
ENGL 1	3	BIOL 4	1
Cluster B (Comm 11-12)	3	CHEM 12	4
DTHY 66 <i>Dent Literature</i>	1	DTHY 85 <i>Oral Anatomy</i>	3
MATH 3	3	HN & F 71 <i>Intro. Nutrition</i>	3
CHEM 11	4	Cluster B (Psych 1)	3
DTHY 1	2	Total	17
Total	17		

Second year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
ANAT 101	4	PSIO 141	4
Cluster B (Soc. 1)	3	ANAT 109 <i>Histology</i>	2
DTHY 105		PCOL 160	3
<i>Theory and Pract. of Prevent.</i> 2		DTHY 125 <i>Dent. Hy. Technics</i>	4
MBIM 26	3	ENGL 2	3
Cluster A	3	DTHY 120 <i>Dent. Nrsg. Technics</i>	1
Cluster B (Psych. 141)	3	Total	17
Total	18		

Summer I

DTHY Clinic 220 (Optional)	1
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Third year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
DTHY 168 <i>Periodont. 1</i>	1	DTHY 169 <i>Periodont. 2</i>	2
PATH 128	2	DTHY 174 <i>Teaching Methods</i>	2
DTHY 152 <i>Dent. Radiol.</i>	2	PATH 129	3
DENT 300 <i>Anes.</i>	1	DTHY 161 <i>Expanded Functions</i>	2
DTHY 172 <i>Public Health</i>	2	Cluster A	3
DTHY 160 <i>Dent. Materials</i> ...	3	DTHY 150 <i>Dent. Health Ed. (w)</i>	3
DTHY 162 <i>Clin. Methods</i>	2	DTHY 164 <i>Clin. Dent. Hy.</i>	2
DTHY 163 <i>Clin. Dent. Hy.</i>	2	DTHY 153 <i>Dental Radiology</i>	1
DTHY 180 <i>Rural Health</i>	2	Total	18
Total	17		

Summer I

Rural Health 194	3
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Fourth year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
DTHY 204 <i>Adv. Clin. Meth.</i> ..	1	DTHY 206 <i>Adv. Clin. DH</i>	3-4
DTHY 205 <i>Adv. Clin. DH</i>	4	DTHY 207 <i>Adv. Clin Meth</i>	1
DTHY 202 <i>Dent. Hy. Pract.</i> ..	2	DTHY 251 <i>Dent. Health Ed. III</i>	2
DH Electives	2	DH Electives	3
Cluster A*	3	Cluster A	3
DTHY 250 <i>DH Ed. II</i>	2	DTHY 220 <i>Clin Did. Sem.</i>	1
Total	14	Total	13-14

DH Elect. 6-7 hours elective credits in Dental Hygiene during the fourth year.

Advanced Education Programs

The divisions of dental hygiene and endodontics and the departments of orthodontics and restorative dentistry offer programs of advanced study leading to the degree of master of science (M.S.). The department of oral and maxillofacial surgery offers one four-year residency. Seven general practice and two advanced education in general dentistry residencies are also offered. Continuing education courses are offered throughout the year. Detailed information concerning admission requirements, courses of study, etc., in these programs may be obtained from the Office of the Associate Dean for Academic and Postdoctoral Affairs, WVU School of Dentistry, Morgantown, WV 26506.

Master of Science

Major in Dental Hygiene

The School of Dentistry and its Division of Dental Hygiene offer a program of advanced study and specialized training leading to the degree of master of science. This program requires a minimum of 36 semester hours through full-time or part-time enrollment in the School of Dentistry. It is designed to qualify dental hygienists for careers in teaching, administration, research and management.

Options for concurrent masters degrees in the areas of community health or health care administration are also available.

Inquiries concerning this program should be directed to the Office of the Associate Dean for Academic and Postdoctoral Affairs, School of Dentistry. Applications should be filed by July 1 for fall admission and by October 15 for spring enrollment.

Admission Requirements

- Graduation with a baccalaureate degree in dental hygiene from an accredited dental hygiene program or graduation with a baccalaureate degree in another field of study from an approved institution of higher education while holding a certificate or associate degree in dental hygiene from a program fully accredited by the American Dental Association Commission on Dental Accreditation.
- Evidence of scholastic and clinical achievement to indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade-point average of 2.75 is required.

- Completion of the Graduate Record Examination (GRE) general aptitude test the last within five years with minimum scores of 400 verbal and 350 analytical and quantitative and totaling 1100 or higher.
- Submission of all information requested in the graduate application to the office of the associate dean for academic and postdoctoral affairs.

Degree Requirements

- Completion of a minimum of 36 semester credit hours: 21 required credit hours and 15 elective credit hours tailored to meet the student's personal and professional goals. Elective courses are taught by a number of schools within the University and are categorized into two basic focus areas: education/administration, and special patient care. An individualized program will be devised for each student with a maximum of six hours in research leading to an acceptable thesis. Oral defense of the thesis is required.
- Achievement of a 3.0 GPA or an overall academic average of at least B in all work attempted in the master's program. A grade of C or below in one course will require a faculty review of the student's progress. A second C or below will result in dismissal from the program.
- Removal of all conditions, deficiencies and incomplete grades. Credit hours for courses with a grade lower than C do not count toward degree requirements.

M.S. Curriculum

	Credit Hrs.
ED P 311 <i>Statistical Methods</i>	3
ED P 330 <i>Foundations of Educational Measurement</i>	3
DTHY 380 <i>Seminar Critical Issues in Health Care</i>	3
DTHY 381 <i>Seminar Expanded Functions</i>	3
DENT 391 <i>Computer Applications in Dentistry</i>	2
DENT 391 <i>Research Methods</i>	1
DTHY 397 <i>Research (Thesis)</i>	6
Total	21

Elective Area(s) of Dental Hygiene Focus 15

Dental Hygiene 391, Dentistry 391 courses, and courses offered by the Colleges of Business and Economics and Human Resources and Education, the School of Medicine's Department of Community Health Promotion, and the Multidisciplinary Studies program.

Total 36

Master of Science Specialization in Endodontics

The School of Dentistry and its Division of Endodontics offer a program of advanced study and clinical training leading to the degree of master of science (M.S.). The program requires a minimum of 24 months (two academic years and two summer sessions) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in endodontic clinical practice, teaching, and research.

Inquiries concerning this program should be directed to the office of the associate dean for academic and postdoctoral affairs. Applicants will be processed in the School of Dentistry. Applicants approved for admission to the program will be notified soon after December 1.

Admission to the Endodontic Program

- Graduation from an accredited school of dentistry.
- Evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature.

Each applicant must file with the Division of Endodontics all information requested in the departmental application form.

Requirements for Degree

- Fulfillment of general WVU graduate study requirements.
- Twenty-four months (two academic years and two summer sessions) of consecutive residency at the WVU School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to endodontics. A certificate will be awarded only upon satisfactory completion of the research and thesis.
- Satisfactory completion of a final oral examination.
- Completion of a minimum of 77 credit hours. These include 49 hours of endodontic courses, a minimum of 15 hours of selected basic sciences subjects, two hours of teaching practicum, and a thesis. (7 hours)
- Demonstration of satisfactory clinical competency in the student's field.
- Achievement of a 3.0 GPA or an overall academic average of at least a B in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

Master of Science Specialization in Orthodontics

The School of Dentistry and its Department of Orthodontics offer a program of advanced study and clinical training leading to the degree of Master of Science (M.S.). The program generally requires 36 months (three academic years and two summers) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in orthodontic clinical practice, teaching, and research. Inquiries concerning this program should be directed to the office of the associate dean for academic and postdoctoral affairs. Those applicants approved for admission to the program will be notified December 1.

Requirements for Admission to the Orthodontic Program

- Graduation from an accredited dental school.
- Evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade-point average of 3.00 is required for admission.
- Each applicant must file with the department all information requested in the department application form.

Requirements for Degree of Master of Science

- Fulfillment of general WVU graduate study requirements.
- Thirty-six months (three academic years and two summers) of residency at the School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to orthodontics.

- Satisfactory passage of a final oral examination.
- Completion of a minimum of 74 credit hours. These include 46 hours of orthodontic courses, a minimum of 13 hours of selected basic sciences subjects, two hours of teaching practicum, and a thesis (13 hours).
- Demonstration of satisfactory clinical competence in the student's field.
- Achievement of a 3.0 GPA or an overall academic average of at least a B in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

Master of Science Specialization in Prosthodontics

The School of Dentistry and its department of restorative dentistry offer a program of advanced study and clinical training leading to the degree of Masters of Science (M.S.). The program generally requires 33 months (three academic years and two summers) of full-time residency in the School of Dentistry. It is designed to qualify dentists for careers in prosthodontic clinical practice, teaching, and research. Inquiries concerning this program should be directed to the office of the associate dean for academic and postdoctoral affairs. Those applicants approved for admission to the program will be notified December 1.

Requirements for Admission to the Prosthodontic Program

- Graduation from an accredited dental school.
- Evidence of scholastic and clinical achievement that would indicate the applicant's ability to progress in a program of this nature. Generally, a minimum grade-point average of 3.00 is required for admission.
- Each applicant must file with the department all information requested department application form.

Requirements for Degree of Master of Science

- Fulfillment of general WVU graduate study requirements.
- Thirty-three months (three academic years and two summers) of residency at the School of Dentistry.
- An approved master's thesis based on original research completed during the period of residency in an area related to prosthodontics.
- Satisfactory passage of a final oral examination.
- Completion of a minimum of 77 credit hours. These include 49 hours of prosthodontic courses, a minimum of 13 hours of selected basic sciences subjects, two hours of teaching practicum, and a thesis (13 hours).
- Demonstration of satisfactory clinical competence in the student's field.
- Achievement of a 3.0 GPA or an overall academic average of at least a B in all work attempted in the master's program. A grade of C or below in two courses will require a faculty review of the student's progress. A third C or below will result in suspension from the program.

School of Medicine

Robert M. D'Alessandri, M.D., Dean.

John F. Brick, M.D., Associate Dean, Hospital Affairs.

James P. Griffith, M.D., Interim Assistant Dean, Student Affairs and Curriculum, Charleston Division.

Anthony DiBartolomeo, M.D., Associate Dean, Clinical Affairs.

Norman D. Ferrari, M.D., Associate Dean, Ambulatory Services.

James K. Hackett, M.B.A., Associate Dean, Finance and Administration.

Charles R. Craig, Ph.D., Interim Associate Dean, Research and Graduate Studies.

Michael J. Lewis, M.D., Ph.D., Associate Dean, Charleston Division.

Mary Beth Mandich, Ph.D., Associate Dean for Allied Health.

James M. Shumway, Jr., M.D., Ph.D., Associate Dean, Educational Programs.

James Stevenson, M.D., Associate Dean, Development and Continuing Medical Education.

John W. Traubert, M.D., Associate Dean, Student and Curricular Affairs.

Degrees Offered:

M.D. in Medicine

M.S., Ph.D. in Anatomy

M.S., Ph.D. in Biochemistry (Medical)

M.S., Ph.D. in Microbiology and Immunology

M.S., Ph.D. in Pharmacology and Toxicology

M.S., Ph.D. in Physiology (Medical)

M.S. in Community Health Promotion

M.O.T. in Occupational Therapy

M.S. in Public Health

B.S., M.S. in Exercise Physiology

B.S., M.S. in Medical Technology

M.S. in Physical Therapy

Historical Background

The West Virginia University School of Medicine started in 1902 as an affiliate with the College of Physicians and Surgeons of Baltimore. In 1912, the School of Medicine had its formal beginnings as an independent school offering the first two years of basic sciences medical curriculum. The clinical years were completed at another institution. The School of Medicine moved to the current Robert C. Byrd Health Sciences Center in 1957 and inaugurated the four year curriculum in 1960, which coincided with the opening of the 550 bed University Hospital. The first M.D. degrees were awarded to 15 students in 1945.

In 1945, the School of Medicine began a course of study leading to a bachelor of science in medical technology. The first graduates were awarded a combined degree by the School of Medicine and the College of Arts and Sciences. The program of medical technology in the School of Medicine was established in 1961.

The Division of Physical Therapy accepted its first class in 1970. The program has recently made its restriction from a bachelor of science degree to an entry-level master's degree program (MPT).

In 1972, the Charleston Area Medical Center became affiliated with West Virginia University. The Robert C. Byrd Health Sciences Center of West Virginia University—Charleston Division offers a variety of third-and fourth-year clerkships for medical students. Approximately one-third of each class goes to Charleston for the third and fourth years of medical education.

The Wheeling Division of the Robert C. Byrd Health Sciences Center of West Virginia University was established in 1974 and offers a variety of elective opportunities for students in the fourth year.

In 1994, exercise physiology, community health promotion, and public health were added to the list of programs in the School of Medicine. In 1996, Occupational Therapy was initiated.

Facilities

The Robert C. Byrd Health Sciences Center of West Virginia University has excellent clinical facilities. The Ruby Memorial Hospital offers the most sophisticated medical technology available, including magnetic resonance imagery, lithotripsy, laser surgery, and the necessary support technology. The Ruby Memorial Hospital also houses the Jon Michael Moore Trauma Center and the WVU Children's Hospital. The Chestnut Ridge Psychiatric Hospital allows the entire spectrum of psychiatric and behavioral problems to be managed. The Mary Babb Randolph Regional Cancer Center, completed in 1990, provides a facility totally dedicated to the diagnosis and treatment of cancer. Dedicated research and teaching space allows outstanding cancer scientists to work toward the goals of prevention and cure. Areas of cellular biology, immunology, monoclonal antibody, gene tracking, and recombination research are ongoing at the Cancer Center. In 1996, the Positron Emission Tomography (PET) Center and cyclotron became operational for specialized diagnostic procedures and research.

Healthsouth Mountainview Regional Rehabilitation Hospital, a sixty-bed inpatient center, offers students the opportunity to investigate rehabilitative and physical medicine as a career. The Department of Human Performance and Applied Exercise Science has recently evolved to incorporate Exercise Physiology, Medical Technology, Physical Therapy, and Occupational Therapy, which complements all of the other existing programs.

School of Medicine Departments

Department	Chairperson
Anatomy	Richard C. Wiggins, Ph.D.
Anesthesiology	Robert E. Johnstone, M.D.
Behavioral Medicine and Psychiatry	James M. Stevenson, M.D.
Biochemistry	Diana S. Beattie, Ph.D.
Community Medicine	Alan Ducatman, M.D.
Emergency Medicine	John Prescott, M.D.
Family Medicine	Charles H. M. Jacques, M.D.
Human Performance and Applied Exercise Science	Mary Beth Mandich, Ph.D.
Medicine	James E. Brick, M.D.
Microbiology and Immunology	John B. Barnett, Ph.D.
Neurology	John F. Brick, M.D.
Neurosurgery	Howard H. Kaufman, M.D.

Obstetrics and Gynecology
 Ophthalmology
 Orthopedic Surgery
 Otolaryngology
 Pathology
 Pediatrics
 Pharmacology and Toxicology
 Physiology
 Radiology
 Surgery
 Urology

Mark Gibson, M.D.
 John V. Linberg, M.D.
 J. David Blaha, M.D.
 Stephen J. Wetmore, M.D.
 Mary Ann Sens, M.D., Ph.D.
 Norman D. Ferrari, M.D., Interim
 William W. Fleming, Ph.D.
 Robert L. Goodman, Ph.D.
 Mathias P. Frick, M.D.
 Gordon F. Murray, M.D.
 Donald L. Lamm, M.D.

Committees (Chairpersons)

Academic Standards
 Biomedical Research Support
 Curriculum Committee
 Executive Faculty
 Faculty Promotion and Tenure
 SoM Hospital Liaison to Student Body
 Admissions Committee, M.D. Degree
 E. J. Van Liere Student Research Convocation
 Continuing Medical Education
 Admissions Committee/Medical Technology
 Admissions Committee/Physical Therapy
 Committee on Women's Issues
 Distinguished Teacher Committee
 Coordinating Counsel on
 Graduate Medical Education
 Admissions Committee/Occupational Therapy
 High School Summer Research Program

Gunter N. Franz
 George Spirou
 Anne C. Cutlip
 Robert M. D'Alessandri
 Michael Miller
 Robert M. D'Alessandri
 Renee Moore
 Jeannie S. Strobl
 James M. Stevenson
 Mary Ellen Koenn
 Trevor Swan
 Anne C. Cutlip
 Mary Ann Antonelli

 Anthony G. DiBartolomeo
 James McPherson
 Christine Baylis

Graduate Programs in Basic Sciences

Charles R. Craig, Ph.D., Chairperson, Health Sciences Graduate Council.

Nature of Program

Graduate degrees are offered by the School of Medicine in the departments of anatomy, biochemistry, pathology (medical technology), microbiology and immunology, pharmacology and toxicology, and physiology. Brief guidelines and descriptions of these programs begin below. For more detailed presentation of graduate programs, as well as the policies and rules governing graduate education, the *West Virginia University Graduate Catalog* should be consulted.

Anatomy

Richard C. Wiggins, Ph.D., Chairperson.

Richard D. Dey, Ph.D., Graduate Coordinator.

Degrees Offered:

Master of Science, Doctor of Philosophy

General Description

The Department of Anatomy graduate program is committed to training researchers and teachers. The program emphasizes various aspects of biomedical sciences, including structural, cellular, molecular, and developmental biology. After completion of core courses, students conduct an original research project culminating in a dissertation (Ph.D.) or a thesis (M.S.).

Interdisciplinary research projects in the department include:

- Structure and transcriptional mechanisms controlling neural gene expression.
- Molecular biology and molecular genetics of neural degeneration and regeneration in the central nervous system.
- Developmental neurochemistry and environmental influences on brain development, especially nutrition.
- Neuroanatomy and neurophysiology of somatosensory and auditory systems.
- Structural plasticity of astrocytes and modulation of synaptic contacts in the central nervous system.
- Development of synaptic connections in the neocortex.
- Developmental genetics of behavioral rodent mutants.
- Neural basis of pulmonary diseases, especially asthma and occupational/environmental diseases.
- Mechanisms regulating microcirculation under pathophysiological conditions.

Prerequisites

Candidates must hold a bachelor's or master's degree. A strong background in biological sciences, inorganic and organic chemistry, physics, and mathematics is required. Under special circumstances, some course requirements may be fulfilled after admission to the program. A grade-point average above 3.0, is recommended. The aptitude portion of the GRE is required and an advanced section usually biology is recommended.

Admission

In addition to the University admission procedures, the Department of Anatomy requires applicants to complete a departmental application. Also, three letters of recommendation evaluating the applicant's potential for graduate study must be separately mailed to the Department of Anatomy. Applicants desiring consideration for financial aid should complete the application process as early as possible. Recipients of departmental stipends (teaching assistantships) must participate in laboratory teaching to professional students.

Course Requirements

The first two years of study consists of course work and introduction to research in one or more departmental laboratories. Completion of the two-semester interdepartmental course in molecular and cellular biochemistry and two courses in either gross anatomy, neurobiology, or microscopic anatomy is required. The selection of other courses in basic biomedical sciences (such as advanced molecular biology, advanced biochemistry, anatomy, neurobiology, pathology, immunology, virology, physiology, pharmacology, biostatistics, etc.) allows substantial flexibility, and is tailored to the individual student's interests and research needs. Additional electives are selected by the student in consultation with a major advisor and an advisory committee. Students must maintain a minimum 3.0 overall grade-point average. Students develop skills in reading, critical thinking, and scientific analysis by participating in departmental seminars and journal clubs.

Doctor of Philosophy Degree

The program is designed to complete the requirements for the Ph.D. degree in four to five years. To be admitted to candidacy for the Ph.D. degree, the student must pass a preliminary examination, administered near the end of the second year of the program. In addition, a plan for the research project to be undertaken for the dissertation must be presented to the candidate's advisory committee and approved. To complete the degree, the student must satisfactorily execute the proposed research project, publicly defend a dissertation based on this research, and pass the final examination by the candidate's advisory committee. Success in dissertation research is the core of the degree.

Master of Science

An applicant who shows a special need for the M.S. degree must generally be as well qualified as applicants to the doctoral program. The M.S. student must complete a minimum of 25 hours of required and elective courses selected by the student in consultation with a major advisor and research committee. A 2.75 grade-point average must be maintained. In addition to course work, the student must complete a thesis based on original research and defend the thesis at an oral comprehensive examination before the candidate's advisory committee.

Biochemistry

Diana S. Beattie, Ph.D., Chairperson.

Lisa Salati, Ph.D., Graduate Coordinator.

Degrees Offered:

Master of Science, Doctor of Philosophy

Graduate programs in the Department of Biochemistry are designed to assist students in the development of their own capabilities for independent thought and research. All students are provided with a strong biochemistry background; however, the program has sufficient flexibility to allow individual students to select advanced specialty courses in biochemistry which are of particular importance to their career goals. Faculty research problems are of current interest and are diverse, reflecting the broad spectrum of areas encompassing biochemistry.

Admission Requirements

A prospective graduate student should hold a bachelor's degree with a science major and should have successfully completed courses in organic chemistry, calculus, physics, biology, and physical chemistry. In some cases, a deficiency in the above may be made up after admission into the program.

Application is made by submission of the following items to the Department of Biochemistry:

- The completed departmental application form (sent on request).
- Three letters of recommendation from professors who can evaluate the student's present abilities and potential.
- Official transcript of the applicant's college grades.
- Official copy of Graduate Record Examination scores.

Owing to the sequence of courses, entrance in the fall is preferred, but exceptions may be made as necessary. Application materials and program details may be obtained by writing the graduate coordinator, Department of Biochemistry, School of Medicine, P.O. Box 9142, West Virginia University, Morgantown, WV 26506-9142. The deadline for receipt of applications and supporting documents by the department is April 1; to be considered for financial support, applications should be submitted by January 15.

Doctor of Philosophy

To assure that all students become familiar with the basic principles of biochemistry, the first year of the doctor of philosophy (Ph.D.) program is devoted primarily to course work. In addition to formal courses during the first semester, students participate in a laboratory program that involves all faculty members. This laboratory experience is designed to illustrate the basic research skills involved in biochemistry. In addition students will begin the first of three longer research experiences culminating in a choice of laboratory for their dissertation research.

Upon successful completion of the first year, students will choose a dissertation research advisor, at which time emphasis will be placed on research. During the second year, specialized courses in biochemistry will be offered as the students continue their research programs. During subsequent years, the students emphasize independent thesis research, and a few formal courses are taken.

An essential component of the Ph.D. program is participation in departmental journal clubs and seminars. Both students and faculty participate; thus, students learn to organize effectively and present research material to large groups of people.

Completion of the Ph.D. program is realized when the student successfully presents the research results to both the Department of Biochemistry and a graduate advisory committee. Typically, five years are required to realize this goal.

Master of Science

The Department of Biochemistry offers the thesis master's degree. This program involves completion of a master's research project in addition to formal course work. Two to three years are generally required to complete the M.S. program.

Research

Hormonal regulation of metabolism. Regulation of gene expression. RNA processing. Structure and function of nucleic acids. Chemistry of enzymes and serum proteins. Biogenesis of membranes. Membrane molecular biophysics. Retroviral genetics. Developmental biology of the eye.

Microbiology and Immunology

John B. Barnett, Ph.D., Chairperson.

James Sheil, Ph.D., Graduate Coordinator.

Degrees Offered:

Master of Science, Doctor of Philosophy

The Department of Microbiology and Immunology offers programs of study leading to the degrees of master of science (M.S.) and doctor of philosophy (Ph.D.) in microbiology and immunology. Students with an undergraduate degree can apply to either the M.S. or Ph.D. program. The major purpose of graduate education in the department is research training. The basic philosophy of the department is that the students have a strong foundation in basic concepts of microbiology and immunology and flexibility in choosing advanced course work in their specific areas of interest. A major emphasis of the graduate program is extensive laboratory research in microbiology and immunology. Each student will complete an original, in-depth research investigation. The overall aim of the program is to produce students capable of designing and doing independent research and teaching.

Admission Requirements

Applicants to either the Ph.D. or M.S. graduate programs in microbiology and immunology should to have had at least four upper-level courses in the biological sciences, two semesters of organic chemistry, two semesters of physics, and a strong background in mathematics (including calculus) in order to be considered for admission. Applicants must submit a departmental application form, three letters of recommendation, and general Graduate Record Examination (GRE) scores to the graduate coordinator, Department of Microbiology and Immunology, P.O. Box 9177, School of Medicine, West Virginia University, Morgantown, WV 26506-9177. In addition, transcripts and an official application for admission must be sent directly to the WVU Office of Admissions and Records, P.O. Box 6009, Morgantown, WV 26506-6009. Applicants for admission to a degree program should have a grade-point average of 3.0 or better and must take the general GRE. GRE scores are used as one of several selection criteria for admission to the department's graduate program. Although no minimum score is required for selection, successful applicants usually have a combined score of 1500 or greater on the general GRE. International students must have a TOEFL score of at least 550. Early application is encouraged. Applicants desiring financial aid should complete their application before March 1. All applications must be completed by June 1 for fall admission. No mid-year admissions are made.

Program Requirements

Master of Science

Every student must take the following courses or demonstrate proficiency by examination in each of the following areas: Microbiology (MBIM) 317 *Special Problems in Microbiology*, and MBIM 391 *Advanced Topics* (laboratory rotation). Every student must take the following courses or demonstrate proficiency by examination in each of the following areas: MBIM 317 A, 317 B and 317 C *Graduate Immunology, Virology, and Microbiology; Biochemistry* (BIOC 399D), *Cellular and Molecular Biochemistry I and II*; and MBIM 391 *Advanced Topics* (laboratory rotations). The remainder of the course work is selected by the student and the advisory committee from the following courses: MBIM 327, 399, or any of the microbiology and immunology advanced study courses (MBIM 491). Enrollment in MBIM 496 *Seminar* is required each semester that the student is in residence. All full-time students in the Department of Microbiology and Immunology are required to participate in teaching at least one semester a year.

The master of science program requires 30 hours of course work, of which at least 20 hours must be in microbiology and immunology. Six hours must be in research (MBIM 397). A grade-point average of at least 3.0 must be maintained. A thesis representing original research and a final oral examination are required.

Doctor of Philosophy

Students with either a bachelor's or master's degree can apply to the Ph.D. program. Those with a bachelor's degree must complete the basic course requirements expected of an M.S. candidate. The doctoral candidate with an M.S. degree from another department must have had course work or demonstrate knowledge in microbiology, immunology, and biochemistry equivalent to that of a master's student in the department. In addition, the doctoral student will take additional course work as determined by the student's graduate research advisory committee. A minimum of nine hours in MBIM 491 courses or selected advanced courses from other departments is required. Where appropriate, course work in related subjects such as computer science, cell biology, biochemistry, physical chemistry, and statistics will be required. MBIM 496 *Seminar* is a required course each semester that the student is in residence. The student will maintain a grade-point average of 3.0. The doctor of philosophy program requires a dissertation representing the results of an original research investigation and the passing of a written qualifying and a final oral examination. The qualifying examination is given at the end of the first year of study. The final oral examination is given after completion of research and an acceptable dissertation. All full-time students are required to participate in teaching at least one semester a year.

The Department of Microbiology and Immunology has informal journal clubs in immunology and microbiology. These are designed to help the students develop skills in reading, interpreting, and discussing current research articles. All students are expected to participate in one or more.

For application materials, a description of faculty research interests, guidelines for graduate study in the Department of Microbiology and Immunology, or additional information, write to the chairperson, Admissions and Scholarship Committee, Department of Microbiology and Immunology, P.O. Box 9177, West Virginia University, Morgantown, WV 26506-9177.

Research

Cell Biology: oncogenes and cell signalling.

Genetics: basic studies in the mechanisms of genetics including transfer of genetic information; recombinant DNA studies.

Immunology: immunopathology of pulmonary disease and microbial inhalants; developmental immunology; mechanisms of T cell function; immunogenetics; immunotoxicology; mucosal immunology; immunology of infectious microbes.

Mycology: pathobiology of medical mycoses; antibiotic susceptibility testing; environmental health implications of fungal and algal toxicoses.

Parasitology: host parasite relationships between helminths and insects with vertebrate hosts; protozoan endosymbionts.

Pathogenic Bacteriology: mode of action of microbial products in pathogenicity; ecology of clinical microbiology; antibiotic mode of action; immunomodulation of cystic fibrosis.

Physiology: nutrition and metabolism of a variety of pathogenic microorganisms; growth and protein synthesis of intracellular bacteria.

Virology: retroviral recombination, oncogene transduction, and human gene therapy.

Pharmacology and Toxicology

William W. Fleming, Ph.D., Chairperson.

Charles R. Craig, Ph.D., Graduate Coordinator.

Degrees Offered:

Master of Science, Doctor of Philosophy

Pharmacology and toxicology involves all aspects of the action of drugs on living systems and their constituent parts. These range from the chemical reactions taking place within cells to the evaluation of a drug in the treatment of human disease. The Department of Pharmacology and Toxicology offers graduate studies leading to the degrees of master of science and doctor of philosophy, with research concentrations in such areas as autonomic pharmacology, biochemical pharmacology, neuropharmacology, molecular pharmacology, cardiovascular pharmacology, endocrine pharmacology, ion-channel pharmacology, malarial chemotherapy, signal transduction, and renal, hepatic, and pulmonary toxicology.

Admissions Requirements

Regular applicants for the graduate program in pharmacology and toxicology should present, as a minimum, the following undergraduate courses: one semester of biology; two semesters of physics; one semester of calculus; four semesters of chemistry including two semesters of organic chemistry. Three letters of recommendation from science professors, an official transcript, and the results of the Graduate Record Examination are also required. The prospective student should have a minimum 3.0 overall grade-point average at the undergraduate level.

In general, students requesting financial support should have all credentials forwarded by February 1. For additional information write to the Graduate Coordinator, Department of Pharmacology and Toxicology, P.O. Box 9223, WVU Health Sciences Center, Morgantown, WV 26506-9223.

Master of Science

Ordinarily the department does not accept graduate students solely into a master's program. However, the master's degree is offered and is available as an intermediate degree en route to the Ph.D. Its primary function, as viewed by the faculty, is as an aid to the student new to research for the formulation, conduct, and writing of an abbreviated, but complete, independent research project (thesis). The course work requirements for the M.S. in pharmacology and toxicology usually consist of Physiology 344 and 345, graduate biochemistry, Statistics 311, and Pharmacology and Toxicology 361, 364, 461, 462, and 497. Most students may, with the faculty's concurrence, choose to proceed directly with their doctoral research without a master's degree. These students must submit a comprehensive progress report on their research in lieu of a thesis.

Master's committees will consist of no fewer than three members with no more than one from outside the department, the majority of which will be regular members of the graduate faculty including the chairperson. No more than one person may be a non-member of the graduate faculty.

Doctor of Philosophy

Before official admission to candidacy for the doctorate, the student must satisfactorily complete a grant-writing exercise, an acceptable progress report, and an oral comprehensive qualifying examination. When a student has submitted a grant proposal, a committee—ordinarily consisting of at least three members of the Department of Pharmacology and Toxicology and two members from outside the department—is appointed and constitutes the oral examining body. The oral qualifying examination is administered in January of the student's third year in the program.

Dissertation

Upon admission to candidacy for the degree of doctor of philosophy, the candidate must select a topic for the dissertation under the direction of the candidate's advisor, complete a dissertation which makes a contribution to knowledge in the candidate's area of concentration, and pass an oral examination based primarily upon the dissertation. After successful completion of the oral examination and submission of the final copy of the dissertation, the candidate will be recommended for the degree.

Research Areas

Autonomic pharmacology: autonomic regulation of the cardiovascular system and of smooth muscle; sensitivity to neurotransmitters; electrophysiologic studies of cardiac and smooth muscle; receptors and second messengers.

Chemotherapy: antimalarial agents, role of ion channels in tumor development, effects of pharmacological agents on single-cell organisms.

Biochemical pharmacology: drug metabolism, effects of drugs on lipid and nucleic acid metabolism.

Endocrine pharmacology: molecular mechanism of action of steroids, metabolism of sex accessory tissues, relationship of hormones to tumor growth and development.

Neuropharmacology: biochemical and electrophysiological basis of epilepsy, neuromediators in the central nervous system, mechanisms of signal transduction, ion-channel pharmacology.

Toxicology: metabolism of toxic agents, pulmonary toxicology, renal toxicology, environmental toxicology, perinatal pharmacology and toxicology.

Physiology (Medical)

John Connors, Ph.D., Graduate Coordinator.

Degrees Offered:

Master of Science, Doctor of Philosophy

The Ph.D. program is designed to produce physiologists of high quality, capable of conducting independent research and being effective teachers. Students in our department are exposed to all aspects of physiology and a variety of related sciences. The master's program is designed as an introduction to research in physiology for students interested in, but not yet committed to, a research career. Students in this program receive training in the fundamentals of physiology and experience in a research laboratory.

Admission Requirements

Applicants should have a strong background in biology and/or chemistry. In addition to a basic biology course, inorganic and organic chemistry are required. Because several areas of physiology require an understanding of the fundamentals of calculus and physics, introductory courses in these subjects are also essential. It is strongly recommended that applicants have taken biochemistry cellular or molecular biology and an introductory physiology course. Physical chemistry is recommended but not required.

The department requires the following materials for consideration for the M.S. or Ph.D. program: three letters of recommendation; transcripts of all undergraduate and graduate grades; a completed departmental application form; and Graduate Record Examination scores (general test). Students from non-English speaking countries also need a Test of English as a Foreign Language (TOEFL) score in excess of 550. A bachelor's degree, or equivalent, is required for admission; an M.S. degree is not a prerequisite for the Ph.D. program.

A complete application kit and detailed descriptions of the degree programs can be obtained by writing to the graduate coordinator, Department of Physiology, P.O. Box 9229, School of Medicine, West Virginia University, Morgantown, WV 26506-9229. Although applications may be submitted as late as May of the year of matriculation, applications must be received before March 1 to be considered for financial aid.

Master of Science

Prerequisites for admission to the master's program are the same as those for the doctoral program. The first two semesters are devoted largely to course work in physiology: twelve hours of physiology, three hours of neurophysiology, and eight hours of physiological methods. A two-semester course in cellular and molecular biochemistry is also required. Students are introduced to the research interests of the faculty through the graduate colloquium and rotations in some

faculty members' laboratories. By the end of the second semester, students will have picked a thesis advisor and will begin work in that laboratory during the summer. The second year is spent primarily on research for and writing of the master's thesis. Students are required to take four hours of advanced physiology and present a research seminar during the second year.

Doctor of Philosophy

The first year curriculum familiarizes the student with the basic information and principles that form a background for advanced work in physiology. Much of this overlaps with the basic science material presented to medical students, so that all students attend several medical school courses, including physiology and neurophysiology. A two-semester cellular and molecular biochemistry course is also required.

In addition to this course work, students are introduced to the research interests of the physiology faculty through the graduate colloquium and rotations in some faculty members' laboratories. The latter are designed to help students choose a dissertation advisor by exposing them to the experimental approaches and techniques used in different laboratories within the department.

During the first summer, students are expected to begin research projects in a departmental research laboratory of their choice. This allows a student to explore an area of research interest and to develop a working relationship with a faculty member without a firm commitment to pursue a dissertation project in that laboratory.

During the second year, the student combines course work with the continuing development of research interests. A graduate advisor is selected during this year. Courses include: advanced physiology (12 hours), graduate colloquium (two hours), graduate seminar (one hour), a teaching practicum (two hours), and research (nine hours).

The second-year curriculum takes the student beyond the medical curriculum, emphasizing critical appraisal of the current research literature. In addition, the student begins to develop his/her teaching skills. The purposes of the graduate colloquium and seminar are twofold. First, they give students an opportunity to become informed of the latest scientific advances. Secondly, students have an opportunity to develop and practice presentation of research seminars. In addition to presentations by faculty and students from the Department of Physiology, faculty members from other departments at WVU and from other institutions are invited to present seminars in the program.

After successful completion of the second academic year, the student takes a two-part qualifying examination. The qualifying examination consists of a comprehensive written examination covering all of the major areas of physiology, followed by a written and oral research design examination. Upon successful completion of the qualifying examination, the student is admitted to candidacy for the degree of doctor of philosophy.

During the third and fourth years, the student may enroll in elective courses. Yearly participation in the teaching practicum provides additional experience in delivering lectures to undergraduate and professional students. However, the student's major effort is directed toward dissertation research. Results of this effort are presented annually in the graduate colloquium. During these years the student will attend and present papers at national meetings of

scientific societies (e.g., American Physiological Society, Biophysical Society, Endocrine Society, Experimental Biology, Society for Neurosciences). The Ph.D. degree generally can be completed in four or five years.

Research and Instruction

Research areas: Faculty laboratories offer opportunities for research in cardiovascular, cell, endocrine, muscle, neural, renal, and respiratory physiology.

Doctor of Medicine Degree (M.D.)

The degree of Doctor of Medicine (M.D.) is granted to students who have completed the prescribed curriculum and who have been recommended for the degree by the faculty of the School of Medicine.

The M.D./Ph.D. program is available to those students who show exceptional interest and scholarly promise. All of the admission requirements of the School of Medicine and the specific graduate program apply. Students apply for the combined degree program after acceptance into medical school. An M.D./M.P.H. program is available for those interested in public health issues.

It is to be understood that the following information applies only to students in the School of Medicine who are enrolled in the prescribed curriculum which culminates in the M.D. degree. All other students, undergraduates, or graduates enrolled in other programs in the School of Medicine are governed by the policies found elsewhere in the *Health Sciences Center Catalog*.

Accreditation

The West Virginia University School of Medicine is accredited by the Liaison Committee on Medical Education (L.C.M.E.).

Admission Requirements

The student preparing for any career in the health professions must have a keen interest in the sciences. Science courses taken in high school should include as many biology, chemistry, and physics courses as possible. A good background in mathematics is strongly recommended.

The following courses are required for consideration of an application to Medical School:

English	6 semester hours or equiv.
Biological sciences (with lab)	8 semester hours or equiv.
Inorganic chemistry (with lab)	8 semester hours or equiv.
Organic chemistry (with lab)	8 semester hours or equiv.
Physics (with lab)	8 semester hours or equiv.
Social or behavioral sciences	6 semester hours or equiv.

Biochemistry and cell biology are strongly recommended. A total of 90 semester hours, exclusive of ROTC and general physical education, is required. Computer skills are required. All required courses must be passed with a grade of C or better.

An excess of credit hours or higher degrees does little to offset the disadvantage of low grades when being considered for admission to the School of Medicine. The practice of repeating courses to raise the grade is discouraged. Applicants who have been subject to suspension from West Virginia University or other medical schools can be admitted only in very exceptional cases and at the discretion of the admissions committee.

Pre-Admission Tests

The scores of the Medical College Admissions Test (MCAT) are one of the factors used by the admissions committee in considering an applicant for admission. The MCAT must be taken within two years of applying to medical school. It is recommended that students take the MCAT during the spring of their junior year in college. This allows for a repeat examination in the fall if necessary. Waiting until fall to take the test could jeopardize an applicant's opportunity since no application for admission is given final consideration until MCAT scores are received by the admissions committee. The MCAT score must be recorded prior to closing of admissions on November 15.

Information concerning the time and place of the test can be obtained from your premedical advisor, admissions committee, or the Office of Admissions and Records.

Application Procedure

The admission process is initiated by completing the American Medical College Application Service (AMCAS) forms. AMCAS packets may be obtained from the Office of Admissions and Records of the West Virginia University Health Sciences Center, or through most pre-professional advising offices.

Application for admission in August 2000, should be made at the end of the 1998-99 school year. The last date for filing an application is November 15. The applicant should file as early as possible making certain that recent MCAT scores, current transcripts, and letters of recommendation are available to the admissions committee.

Admissions preference is given to West Virginia residents and those non-resident applicants who have strong ties to the state. No one specific factor is used to determine admission. However, careful consideration is given to those personal qualifications which apply to the study and practice of medicine. The criteria for admission include academic performance, course load, letters of recommendation, MCAT scores, motivation, interpersonal skills, community service, health care experiences, and a personal interview.

No applicant is admitted before an interview by the admissions committee. All qualified residents of West Virginia are granted an interview. Qualified nonresident applicants are interviewed at the discretion of the admissions Committee. Residency status is determined by the Board of Trustees Policy Bulletin #36. Interviews and consideration of applicants begin in September.

If an applicant is denied admission or does not enroll after acceptance, he/she must reapply in the regular manner for consideration in a subsequent year.

Advanced Standing

Advanced standing positions are offered only in very exceptional circumstances and only to students currently attending a medical school accredited by the Liaison Committee on Medical Education (L.C.M.E.). A request for transfer is usually considered during the second year. The application must be received no later than April 1. The applicant must present certification of good academic and professional standing in the school from which he/she is transferring. An official transcript of all prior medical school work is required from all medical schools attended. In addition, successful results of Step I of the United States Medical Licensure Examination must be available before action on an application can be finalized.

Conditions Following Acceptance

An applicant accepted into the first year or in advanced standing is expected to meet all entrance requirements and satisfactorily complete all undergraduate/medical school work in progress. Failure to do so may result in the withdrawal of the acceptance by the admissions committee.

The student must be aware that furnishing, or causing to be furnished, false or incorrect information for the purpose of the School of Medicine application constitutes grounds for disciplinary actions, including, but not limited to, expulsion or revocation of the acceptance.

Students in the School of Medicine agree to abide by the provision of an integrity code, which requires ethical and moral standards of conduct in all situations. Each student is required to return a signed statement to the Office of Student and Curricular Affairs, indicating the student has read and understands the Student Professional and Academic Integrity Code of the West Virginia University School of Medicine. The code and copies of the statement are available in the Office of Student and Curricular Affairs in the School of Medicine.

Prior to entering medical school, all students must complete certain prescribed immunization and diagnostic procedures. Personal health insurance is required.

Promotion and Graduation Requirements

Evaluation of Student Progress

Promotion of a student in the M.D. degree program is evaluated in three major areas: 1) Successful completion of all required work; 2) Successful completion of Step 1 and Step 2 of the United States Medical Licensure Examination, and 3) Successful fulfillment of the professional standards of the School of Medicine.

The following information is only a brief outline of the School of Medicine policies and procedures. Detailed requirements and policies for evaluation of student progress and graduation may be found in the Policy on Academic and Professional Standards Governing the M.D. Degree Program at West Virginia University School of Medicine. Copies are available through the Office of Student and Curricular Affairs. The committee on academic and professional standards administers all promotion and dismissal rules.

Academic Course Work Review

The committee on academic and professional standards of the School of Medicine reviews the performance of each student in every course at the end of each academic period and makes recommendations to the dean. If a student has been found to have an unsatisfactory performance in any of the required courses, dismissal from the school may be recommended. In selected circumstances, the committee may recommend remedial work or repetition of all or a portion of the curriculum. Exceptions may be made only on recommendation of the committee. The application of rules on dismissal is not automatically changed by removal of incomplete (I) grades or by the repetition of courses in other medical courses.

It is the policy of the School of Medicine that the departments conduct examinations to help in the overall evaluation of student progress. In addition to the departmental examinations, other examinations may be conducted for other purposes. At the end of each year a comprehensive examination, designed on an interdepartmental basis, may be required as a test of readiness for promotion.

A student may be subject to remedial work or dismissal on recommendation of the committee on academic and professional standards to the dean even though no Unsatisfactory (U) grade has been received in a required

course. Such an unusual event would occur only if, in the opinion of the committee, the student's overall performance does not meet the academic/professional standards of the School of Medicine.

Readmission of a dismissed student is the prerogative of the admissions committee after careful review of the student's performance, including but not limited to, recommendations of the committee on academic and professional standards.

Grading Policy

All courses required for the M.D. degree are graded as Honors (H), Satisfactory (S), or Unsatisfactory (U) at the completion of the course in lieu of other letter grades. The H, S, and U designations are accompanied by a narrative report of the student's progress, noting any factors requiring remedial work or counseling. The narrative is submitted by each course and filed in the Office of Student and Curricular Affairs. A grade of U shall be regarded as a failing grade and all University regulations regarding a failed course shall apply.

The grade of incomplete (I) is given when the instructor believes that the work is unavoidably incomplete or that a supplementary examination is justifiable. If a grade of I is not removed by satisfactory completion of the work before the end of the next semester in which the student is in residence, it becomes a failure (unsatisfactory) unless special permission to postpone the work is obtained from the committee on academic and professional standards (University rule). All students who have a health problem which they feel may be causing difficulty with their academic progress are strongly advised to notify the Associate Dean for Student and Curricular Affairs. It is the responsibility of the student to consult the instructor about the means and schedule for making up incomplete courses.

No student will be permitted to register for any work of the second or subsequent year until all courses for the year before have been completed successfully.

United States Medical Licensure Examination (USMLE)

All states require that physicians be licensed to practice medicine. Satisfactory completion of all portions of the United States Medical Licensing Examination (USMLE) is the only mechanism by which this license may be obtained. The School of Medicine requires a passing grade on Step I and Step II for promotion and graduation. A failing grade will delay progress and require remediation. School of Medicine policy limits a student to three attempts on each step.

Step I is required upon successful completion of all basic science course work. A passing grade in Step I is required for promotion into the clinical rotations. Step II is required after successful completion of third year clinical rotations. A passing score on Step II is required before a recommendation can be made to grant the M.D. degree by the School of Medicine faculty and committee on academic and professional standards.

Licensure examinations are administered using a computer-based testing format.

Professional Standards Review

All nondisciplinary matters are governed by the concept of academic due process.

Upon concurrent recommendation of the admissions committee, the committee on academic and professional standards, and the departments concerned, a limited number of students may be admitted to the School of Medicine to follow a special schedule reflecting the student's individual needs to complete requirements for the M.D. degree.

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession. In all other matters, due process principles shall apply. For further information the reader is referred to The Policy on Academic and Professional Standards Governing the M.D. Degree Program at West Virginia University School of Medicine, which is available at the School of Medicine Office of Student and Curricular Affairs.

Departure from Scheduled Work

Medical students are registered for all prescribed courses for each semester except by special permission from the committee on academic Standards and the Associate dean of student affairs of the School of Medicine. This permission is not valid until it has been reported to the assistant director of admissions and records, Health Sciences Center, and for record, The Office of Student and Curricular Affairs, School of Medicine.

Interruption of academic work must be approved by the Office of Student and Curricular Affairs.

Curriculum

The field of medicine is rapidly changing. The following curriculum outline is the plan that is presently in place. However, the medical school curriculum at West Virginia University will change as needs dictate.

Medicine

All students of the Health Sciences Center are required to perform community service as a component of their curriculum. Medical students must complete 100 hours of community service prior to graduation.

A Changed Medical Education Program of Study

The medical education curriculum has been totally revamped—starting with the first year. The most significant changes are: 1) the academic year has been increased from 32 weeks to 38 weeks; 2) students will begin clinical experiences early in their first year of medical school; 3) the basic science disciplines have been integrated into modules oriented around function, structure, and neuroscience; 4) the basic science modules (blocks) will run contiguously and not be in competition with each other as in the past; and 5) incoming medical students will be required to lease a windows-based laptop to use in the new curriculum that will incorporate information and academic technologies in the delivery of instruction.

With these principles in mind, the old semester (college-like) schedule of the first year, for example, physiology, gross anatomy, biochemistry, neurobiology, microanatomy, epidemiology, and psychiatry have been replaced. Now there are three blocks of basic science (human function, human structure, and neuroscience) along with two other courses—patient-centered health care and introduction to the patient, running concurrently for the entire year.

First Year

The following is a brief description of the curriculum in the first year:

MS 1 (new, beginning August, 1998). Thirty-eight week academic year divided into three blocks (16 weeks, 15 weeks, and 7 weeks). Approximately 24 scheduled hours per week. Each block contains three courses: a basic science multidisciplinary course, patient-centered health care (2.5 hrs per week with half of that time being spent in small groups), and introduction to the patient (2 hrs. large group per week alternating every other week with small groups). While patient-centered health care and introduction to the Patient run throughout the year, the basic science component changes each block. First block (16 weeks) contains a multidisciplinary run course: human function (12 hrs. large group, 6 hrs. small group per week). Second block (15 weeks) consists of human structure (7 hrs. large group, 11 hrs. laboratory). Third block (7 weeks) consists of multidisciplinary neuroscience (10 hrs. large group, 8 hrs. laboratory and small group). A weekly problem-based learning group (PBL) is maintained throughout the year.

Second Year

Similar changes are slated for the second year of the curriculum. But those changes will not be implemented until the 1999-2000 academic year. The following is a brief description of the curriculum in the second year:

MS2 (new, beginning August, 1999). Thirty-four week academic year divided into three blocks (10 weeks, 16 weeks, 8 weeks). Approximately 26 scheduled hours per week. Each block contains three courses: a basic science multidisciplinary course, evidence based medicine (2.5 hours per week), and physical diagnosis and clinical integration (4 hours per week). While evidence based medicine and physical diagnosis and clinical integration run throughout the year, the basic science component changes each block. The first block (10 weeks) a single course integrating microbiology and immunology (18 hours per week). The second block (16 weeks) consists of mechanisms of disease (18 hours per week), and the third block (8 weeks) consists of medical pharmacology (18 hours per week). Problem based learning is used throughout the year to provide a clinical orientation to these medically important basic science blocks.

Clinical Years

The last two years of study take place in the clinics and hospitals where students have the opportunity to help diagnose and treat patients under supervision of the full-time faculty and staff. All students will serve a significant portion of the clinical years training at an off-campus or rural site.

Third Year

In the third year the student must spend a designated period of time in each of the major clinical disciplines: internal medicine, surgery, pediatrics, obstetrics and gynecology, psychiatry and neurology, and family medicine. This gives the student a foundation in history-taking, examination, patient relations, laboratory aids, diagnosis, treatment, and use of the medical literature in the major clinical disciplines.

Approximately one-third of each class is selected during their first year to spend the third and fourth year at the Charleston Division of the Robert C. Byrd Health Sciences Center of West Virginia University.

Fourth Year

The fourth year is a partially structured and partially elective year. Each student works with an advisor to select the program best suited to the individual's abilities and goals. The courses selected are subject to the approval of the associate dean in the Office of Student and Curricular Affairs.

Five months of the senior year are committed to required clerkships which include one month in internal medicine, family medicine, or pediatric sub-Internship; one month in critical care/anesthesia; one month of Surgery or surgical sub-specialties; and two consecutive months of rural primary care. The remaining five months of the senior year is elective.

Four months of the senior year must be spent at clinical sites on the campuses at Morgantown and Charleston, or at approved teaching sites throughout West Virginia. A catalog is available from the Office of Student and Curricular Affairs that lists the approved electives and selection guidelines.

Students interested in other extramural opportunities are advised to consult with the fourth-year curriculum coordinator in the Office of Student and Curricular Affairs. Elective time must be spent in L.C.M.E. (Liaison Committee on Medical Education) or JCAH (Joint Council of American Hospitals) accredited institutions. Foreign rotations, regardless of sponsorship, are limited to one month credit.

Every fourth-year student has the opportunity for two weeks of vacation. The student may alternatively choose a clinical exercise for vacation time.

Medicine I

Hrs. -wk		Module 1 (16 wks)	Module 2 (15 wks)	Module 3 (7 wks)	Hrs. -wk
1	I N F O R M A T I O N	CCMD 330	ANAT	CCMD 375	1
2		Human Function	Human Structure	Neurobiology	2
3					3
4					4
5		Integrated:	Integrated:	Integrated:	5
6		Biochemistry,	Gross Anatomy,	Neuro-	6
7		Physiology,	Histology,	-Anatomy,	7
8		Genetics	Embryology	-Physiology	8
9					9
10					10
11					11
12		(18 hrs./wk)	(18 hrs./wk)	(18 hrs./wk)	12
13	T E C H N O L O G Y				13
14					14
15					15
16		Problem Based Learning	(1.5 hrs./wk)		16
17					17
18					18
19					19
20		CCMD 340			20
21		Patient Centered Health Care	(2.5 hrs./wk)		21
22					22
23					23
24		CCMD 345			24
25		Introduction to the Patient	(2 hrs./wk)		25
26					26
27					27
28					28

Medicine II

Hrs. -wk		Module 1 (10 wks)	Module 2 (16 wks)	Module 3 (8 wks)	Hrs. -wk
1	I N F O R M A T I O N	CCMD 380	PATH 351	PCOL 361	1
2		Immunity,	Mechanisms of Disease	Medical Pharmacology	2
3		Infection and Disease			3
4					4
5			Pathology	Pharmacology and	5
6		Integrated:		Toxicology	6
7		Microbiology,	(18 hrs./wk)		7
8		Immunology,			8
9		Pharmacology			9
10				(18 hrs./wk)	10
11					11
12		(18 hrs./wk)			12
13	T E C H N O L O G Y				13
14					14
15					15
16		Problem Based Learning	(1.5 hrs./wk)		16
17					17
18					18
19					19
20		CCMD 390			20
21		Evidence Based Medicine	(2.5 hrs./wk)		21
22					22
23					23
24		CCMD 395			24
25		Physical Diagnosis and Clinical Integration	(4 hrs./wk)		25
26					26
27					27
28					28

Medicine III Clerkships

Weeks

8	Medicine
8	Surgery
8	Behavioral Medicine and Psychiatry with two weeks of Neurology
8	Obstetrics and Gynecology
8	Pediatrics
8	Family Medicine including Rural Rotation
48	Total

Medicine IV Rotations

8	Two Month Consecutive Rural
4	Subinternship
4	Critical Care/Anesthesia
4	Surgery/Subspecialties
20	Electives
40	Total

Community Health Promotion

Kenard McPherson, Ed.D., Program Director.

Degree Offered:

Master of Science

The Health Promotion Program offers a master of science degree with majors in community health education and school health education. The community health education degree includes a clinical or research option. The major purpose of the program is to prepare health professionals to interface between communities and health care systems. Community health professionals serve as partners in the health care team and provide leadership in planning, developing, organizing, implementing, and evaluating health promotion programs.

Health promotion graduates may be employed as school health educators, community health educators, wellness center program managers, or health promotion specialists in corporations, health agencies, or state/county health departments.

Admission

Applicants into either degree program must hold a bachelor's degree from an accredited college or university; meet university admission standards; and demonstrate academic achievement in previous studies. Applicants for the School Health Education master's program must hold a West Virginia teaching certificate or be in the process of obtaining certification.*

Grade-Point Average

Applicants must have attained a GPA of 2.75 or higher at the baccalaureate level to be accepted as regular graduate students. Students with a GPA of 2.75 or better must submit: (1) a one-page (typewritten or wordprocessed) statement addressing their goals and interests in health, and (2) a resume (vitae) of all prior work experiences (the program will provide the required form).

Applicants with a GPA below 2.75 may be accepted on a provisional basis. Students with a GPA below 2.75 must submit: (1) a one-page (typewritten or wordprocessed) statement addressing their goals and interests in health, (2) a resume (vitae) of all prior work experiences (the program will provide the required format for the resume), and (3) three reference letters addressing potential for academic success and effectiveness in prior work performance.

Applicants meeting admission requirements may not be accepted if program enrollment maximum level has been reached. Preferential admission is given to the best qualified students fulfilling one or more of the following qualifications:

- At least two years of full-time professional work experience in the health or human services field.
- Breadth and depth of academic preparation in the biological or health sciences.
- Bachelor's degree in health promotion or health education.

*School Health Education option is available only at select off-campus sites.

Application Deadline

Applicants are regularly admitted for the fall term. Preference is given to early applicants meeting all admission requirements by March 1 of the year in which the applicant intends to begin the master's program. Under unusual circumstances applicants may be admitted during the spring or summer terms.

Community Health Education Coursework Requirements

Students in the community health education master's program must complete a clinical or a research emphasis. Students selecting the clinical emphasis complete 48 hours of study (36 hours of coursework and a 12-hour practicum). Required CHPR courses are: CHPR 310, 311, 312, 314, 334, 335, 338, and 348. In addition to the 24 hours of required courses, students must take 12 hours of electives approved by the student's faculty committee. They may choose from topical areas such as substance abuse, injury control, wellness, evaluation, and epidemiology. The practicum, CHPR 350, is designed for students without professional work experience relevant to the objectives of the Community Health Promotion Program. For students without such work experience, 12 hours of CHPR 350 is required. For those students with relevant work experience, partial credit for CHPR 350 may be awarded. However, all students must take at least 3 credit hours of CHPR 350.

Students selecting the research emphasis complete 36 credit hours. Required CHPR courses are: CHPR 310, 311, 312, 314, 334, 335, 338, and 397 (6 hours). In addition to the 27 hours of required courses, students must take 9 hours of electives from health promotion, epidemiology, statistics, and research, to include a minimum of 3 credit hours in research methods. All electives must be approved by the student's faculty committee. A thesis is required in the research emphasis.

A customized program may be designed for students with extraordinary professional experience or academic preparation. Such a program must be approved by the faculty committee and incorporated into the student's plan of study before completing any coursework toward the community health promotion degree.

School Health Education Coursework Requirements

The school health education master's degree program is open *only* to students who hold a West Virginia teaching certificate or who are eligible for certification. Students must complete 36 credit hours. Required CHPR courses are: CHPR 291 (*Special Topics: Health Concepts*), 301, 307, 220 or 309, 310, 311, 312, 333, 334, 335, 338, and 391 (*Advanced Topics: Performance Assessment*). (The school health education master's degree program is currently under review. Please contact the program director for current information.)

Graduation Requirements

- All students must maintain a 3.00 grade-point average in order to graduate with the M.S. degree.
- All students completing the CHPR master's degree must sit for the CHES (Certified Health Education Specialist) examination given annually by the National Commission for Health Education Credentialing. This examination provides for nationally recognized individual certification as a community health education specialist.
- All students must complete a program satisfaction survey before graduation.

Department of Human Performance and Applied Exercise Science

Three divisions make up the Department of Human Performance and Applied Exercise Science. The divisions are:

Division of Exercise Physiology

Has both an undergraduate and graduate program.

Division of Occupational Therapy

Has an entry-level master's program.

Division of Physical Therapy

Has an entry-level master's program.

Exercise Physiology

Rachel A. Yeater, Ph.D., Professor and Chair.

Degree Offered:

Bachelor of Science

Introduction

The WVU exercise physiology program was established in the Robert C. Byrd Health Sciences Center's School of Medicine in July 1993. Prior to that time, the exercise physiology program was administered in the School of Physical Education. The program offers a four-year curriculum leading to a bachelor of science degree in exercise physiology. The bachelor of science in exercise physiology is a preparatory program for graduate or professional school. Graduates continue their education in areas such as exercise physiology, physical therapy, or medicine. The program is designed to provide students a background in basic science and exercise physiology, as well as courses in nutrition, athletic training, first aid and emergency care, and business.

Exercise Physiology—The Profession

Exercise physiologists are trained to evaluate people in the areas of cardiovascular fitness, muscular strength and endurance, flexibility, neuromuscular integration, and body composition. They are also trained to provide exercise programs based on the results of these evaluations that are designed to increase the functional capacity of the participants. Exercise physiologists work with athletes, patients, or healthy participants in the areas of disease prevention in wellness programs, or rehabilitation in hospital settings. The bachelor of science program is a preparatory program for graduate school. Graduates of this program continue their studies in exercise physiology, physical therapy, medicine, or other health-related careers. Graduates of the master of science or doctoral program find employment in corporate wellness, hospital rehabilitation, or higher education. Additionally, they may be employed in a wide variety of private, community, state, and national agencies. Exercise physiology is an evolving field that is becoming increasingly important with the integration of preventive medicine into the health care system. Employment opportunities are expanding and increasing with experience and level of education.

Bachelor of Science

Admission

Students must meet the minimum requirements for WVU for admission to the program. Students must complete one year of pre-exercise physiology courses with at least a 2.75 grade-point average. All required courses must be completed with a grade of C or higher.

Pre-Exercise Physiology Courses

- English: three hours of composition and rhetoric (ENGL 1).
- Biology: eight hours of general biology (BIOL 1, 2, 3, and 4).
- Mathematics: six hours of college algebra and trigonometry (MATH 3 and 4).*
- First aid and emergency care: 3 hours (CHPR 72).
- Liberal studies cluster courses: 12 hours from Cluster A and/or B.

*MATH 14, 15, or 128 can be substituted for MATH 3 and 4

Program Requirements

Students must complete the University requirements for the liberal studies program (including 12 hours of Cluster A and 12 hours of cluster B). Students must complete the following courses or course equivalents in theory and foundation to meet the exercise physiology program requirements:

Course	Hrs.
SS 226 <i>Special Topics: Sports and the Courts</i>	3
CHPR 72 <i>First Aid and Emergency Care</i>	3
PET 75 <i>Motor Learning and Development</i>	3
ATTR 121 <i>Sport Injury Control and Management</i>	3
ATTR 219 <i>Gross Anatomy</i>	3
EXPH 164 <i>Kinesiology</i>	3
EXPH 165 <i>Exercise Physiology I</i>	3
EXPH 168 <i>Laboratory Techniques and Methods I</i>	3
EXPH 194 <i>Professional Field Experience</i>	6
EXPH 196 <i>Senior Thesis</i>	3
MATH 3 <i>College Algebra*</i>	3
MATH 4 <i>Plane Trigonometry*</i>	3
PHYS 1 <i>Introductory Physics</i>	4
PHYS 2 <i>Introductory Physics</i>	4
CHEM 15 <i>Fundamentals of Chemistry</i>	4
CHEM 16 <i>Fundamentals of Chemistry</i>	4
CHEM 133 and 135 <i>Organic Chemistry I</i>	4
CHEM 134 and 136 <i>Organic Chemistry II</i>	4
BIOL 1 and 3 <i>General Biology and Lab**</i>	4
BIOL 2 and 4 <i>General Biology and Lab**</i>	4
PSIO 141 <i>Elementary Physiology</i>	4
HN and F 71 <i>Introduction to Human Nutrition</i>	3
BUSA 120 <i>Survey of Management</i>	3
BUSA 130 <i>Survey of Marketing</i>	3
STAT 101 <i>Elementary Statistical Inference</i>	3
Suggested Electives: BIOL 19 <i>The Living Cell</i> (4 hrs.) and BIOC 139 (3 hrs.)	

*Students may take MATH 14, MATH 15, or MATH 128 in place of MATH 3 and 4.
**Students may take BIOL 15 and 17 in place of BIOL 1-4.

Students must have a grade of C or better in all required courses. Science courses must be taken at WVU. Students must have a minimum of 128 hours to graduate. Students must maintain a cumulative GPA of 2.5 or better to remain in the program.

Exercise Physiology Curriculum Plan

Pre-Exercise Physiology Required Courses

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
ENGL 1	3	MATH 4*	3
Cluster A or B	6	BIOL 2 and 4**	4
MATH 3 *	3	Cluster A or B	6
BIOL 1 and 3**	4	CHPR 72	3
Total	16	Total	16

Sophomore

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
CHEM 15	4	CHEM 16	4
PHYS 1	4	PHYS 2	4
HN & F 71	3	BUSA 120	3
ATTR 121	3	PSIO 141	4
ENGL 2	3	Cluster A or B	3
Total	17	Total	18

Junior

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
CHEM 133 and 135	4	CHEM 134 and 136	4
EXPH 164	3	EXPH 165	3
Writing Course	3	ATTR 219	3
Cluster A or B	6	EXPH 168	3
Total	16	Cluster A or B	3
		Total	16

Senior

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
EXPH 194 (Internship)	3	EXPH 196 (Senior thesis)	3
SS 226	3	EXPH 194 (Internship)	3
STAT 101	3	BUSA 130	3
Electives	3	Electives	6
Total	12	Total	15

(Suggested electives: BIOL 19 *The Living Cell* (4 hrs.) and 139 *Biochemistry* (3 hrs.)

*MATH 14, 15, or 128 can be substituted for MATH 3 and 4.

**BIOL 15 & 17 can be substituted for BIOL 1-4.

Division of Occupational Therapy

Randy P. McCombie, Ph.D., OTR/L, Interim Chair.

Degree Offered:

Masters of Occupational Therapy

Introduction

In fall, 1993, the WV Board of Trustees approved the establishment of a new Master's degree program at West Virginia University, leading to an entry-level master's degree in occupational therapy. The program at WVU accepted its first students into the professional program in the fall semester of 1996. The academic and fieldwork program requires three years to complete. Prior to application, students are required to complete 63-65 hours of prerequisite courses, which in most instances will take two years to fulfill.

The Profession of Occupational Therapy

Occupational therapy is a health profession which services are provided to people of all ages with physical, mental, or developmental disabilities. The purpose of occupational therapy is to help individuals achieve a maximum level of independence. The focus is developing the capacity to function in all activities (occupations) of daily life, including self care, work, and leisure, hence, the name occupational therapy.

Occupational therapy is a health and rehabilitation profession designed to help people regain and build skills that are important for health, well-being, security, and happiness.

Occupational therapists work with people of all ages who, because of physical, developmental, social, or emotional deficits, need specialized assistance in learning skills to enable them to lead independent, productive, and satisfying lives.

According to the U.S. Bureau of Labor Statistics, there will be a 55 percent increase in the number of available positions by the year 2005. Occupational therapists work in schools, hospitals, rehabilitation centers, home health agencies, skilled nursing homes, and private practice. Average starting salaries for new occupational therapists range between \$36,000 and \$39,000.

Accreditation Status

WVU's Division of Occupational Therapy has been granted accreditation status by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA's phone number is (301) 652-AOTA. Graduates of the program will be able to sit for the national certification examination for the occupational therapist administered by the American Occupational Therapy Certification Board (AOTCB). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). Most states require licensure in order to practice; however, state licenses are usually based on the results of the AOTCB Certification Examination.

Admissions Process

This includes obtaining an application packet from the Office of Admissions and Records (304) 293-3521, available December 1st, and completing that packet by February 15th. A personal interview may be required.

College Prerequisite Courses Include:

ENGL 1	3
ENGL 2	3
PSYC 1	3
PSYC 141	3
PSYC 281	3
SOCA 1 <i>OR</i> SOCA 5	3
BIOL 1 and BIOL 3	4
BIOL 2 and BIOL 4	4
CHEM 15	4
BOTH MATH 3 and 4; <i>OR</i> MATH 14	
PHYS 1	4
PHYS 2	4
STAT 101	3
COMM 11	1
COMM 12	2
Appalachian, Rural, or West Virginia studies course in any discipline	3
Fulfillment of WVU's foreign or minority cultures requirement (see <i>WVU Undergraduate Catalog</i>)	3
Completion of WVU's LSP requirements—Cluster A courses (see <i>WVU Undergraduate Catalog</i>)	12

WVU Students must consult the Student Advising Center prior to enrolling in prerequisite courses. These courses may be taken at any institution which offers equivalent courses. Any questions regarding prerequisite courses may be Directed to the Office of Academic Advising, (304) 293-5805. Equivalence may be determined by contacting the transfer desk, Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009.

Admission Standards

Normally, students apply to the program during their second year of college. They must have a minimum of 63 to 65 hours of college credit which includes the pre-requisites listed above. Students who already have a degree in another field are also eligible to apply. All applicants must meet the following criteria:

- Minimum GPA of 3.0, overall and prerequisites, (a higher GPA may be necessary given the competitive nature of the program).
- Minimum of 60 hours of volunteer or work experience with people with disabilities is required. A minimum of 45 of those hours must be with a licensed occupational therapist or a certified occupational therapy assistant (COTA).
- Two letters of recommendation are also required, one from an occupational therapist or COTA who supervised the volunteer/work experience and the other from a professor who has recently taught the applicant.

- Completion of *all* prerequisite courses by the end of the semester of application (normally, second semester of sophomore year) is normally required.

Strong consideration will be given to residency and a commitment to stay in West Virginia to practice after graduation.

What to Expect

Like many professional programs, the curriculum in the master's entry-level occupational therapy program is fairly fixed and intense. The first professional year will include courses in basic sciences and introductory professional courses. The second and third professional years will deal more specifically with training in occupational therapy theory and practice as administered across a wide variety of settings. The professional curriculum includes two off-campus, full-time clinical experiences known as Level II Fieldworks. Students are financially responsible for transportation, housing, and meal expenses related to clinical assignments.

Occupational Therapy Curriculum Plan

Junior Year

<i>Summer session II</i>	<i>Hrs.</i>
OTH 100	4
OTH 280	1
Total	5

52, 2000

<i>First semester</i>	<i>Hrs.</i>
PSIO 241	4
OTH 101	3
OTH 102	2
OTH 103	2
OTH 104	4
OTH 106	4
Total	19

12000

<i>Second semester</i>	<i>Hrs.</i>
EXPH 165	3
OTH 107	4
OTH 108	3
OTH 221	3
OTH 297	3
OTH 280	1
Total	17

S.P. 2001

Senior Year

<i>First semester</i>	<i>Hrs.</i>
OTH 185	2
OTH 202	2
OTH 201	4
OTH 206	3
OTH 208	3
OTH 230	3
OTH 280	1
Total	18

12000

<i>Second semester</i>	<i>Hrs.</i>
OTH 186	2
OTH 216	2
OTH 217	3
OTH 219	3
OTH 232	4
OTH 235	3
OTH 280	1
Total	18

68 2002

Graduate Year

<i>Summer I and II</i>	<i>Hrs.</i>
OTH 240	3
Total	3

Sum 1+2 2002

~~Graduate~~
~~Aug 2002~~ →

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
OTH 300	3	<i>Weeks 1-4</i>	
OTH 301	4	OTH 350	3
OTH 303	3	OTH 351	3
OTH 305	3	OTH 280	1
OTH 320	3	OTH 397	4
OTH 280	1	<i>Weeks 5-16</i>	
Total	17	OTH 340	6
		Total	17

WVU Entry-Level Master's Program in Occupational Therapy

Summer Session II

OTH 100	<i>Essentials of Clinical Anatomy</i>
OTH 280	<i>Current Topics in Occupational Therapy</i>

Fall Term—First Year

PSIO 241	<i>Mechanisms of Body Function</i>
OTH 101	<i>Professional Foundations</i>
OTH 102	<i>Survey of Clinical Problem Solving</i>
OTH 103	<i>Functional Movement Across the Lifespan</i>
OTH 104	<i>Clinical Sciences</i>
OTH 106	<i>Kinesiologic Foundations for Intervention</i>

Spring Term—First Year

EXPH 165	<i>Human Nutrition and Exercise Physiology</i>
OTH 107	<i>Neurobiologic Foundations</i>
OTH 108	<i>Evaluation Procedures</i>
OTH 221	<i>Developmental Life Tasks</i>
OTH 297	<i>Research Methods in OT</i>
OTH 280	<i>Current Topics in Occupational Therapy</i>

Fall Term—Second Year

OTH 185	<i>Fieldwork I (1)</i>
OTH 202	<i>Clinical Decision Making</i>
OTH 201	<i>Clinical Sciences</i>
OTH 206	<i>Cardio-pulmonary Evaluation and Intervention</i>
OTH 208	<i>Tests and Measures in OT</i>
OTH 230	<i>OT in Mental Health</i>
OTH 280	<i>Current Topics in Occupational Therapy</i>

Spring Term—Second Year

OTH 186	<i>Fieldwork I (2)</i>
OTH 216	<i>Professional Decision Making</i>
OTH 217	<i>Occupational Therapy in Geriatrics</i>
OTH 219	<i>Professional Values</i>
OTH 232	<i>OT Interventions — Mental Health</i>
OTH 235	<i>Therapeutic Activity</i>
OTH 280	<i>Current Topics in Occupational Therapy</i>

Summer—Beginning Third Year

OTH 240 *Level II Fieldwork*

Fall Term—Third Year

OTH 300 *Health Care Issues in OT*
OTH 301 *Management for OT Practice*
OTH 303 *OT in Pediatrics*
OTH 305 *Prosthetics and Orthotics*
OTH 320 *OT in the Work Environment*
OTH 280 *Current Topics in Occupational Therapy*

Spring Term—Third Year

OTH 350 *Education in OT Practice*
OTH 351 *OT in Prevention and Wellness*
OTH 280 *Current Topics in Occupational Therapy*
OTH 397 *Supervised Research in OT*
OTH 340 *Fieldwork II*

Physical Therapy

MaryBeth Mandich, PT, Ph.D.

Degree Offered:

M.P.T. Master's in Physical Therapy (entry-level)

Note: The Division of Physical Therapy was given approval in May, 1996, by the West Virginia Board of Trustees to transition from its previous bachelor's degree program to an entry-level master's degree program (M.P.T.). The program was awarded interim accreditation of the entry-level master's degree in May 1997. The first master's class was enrolled in the new curriculum in fall of 1997. The baccalaureate degree will no longer be offered as of December, 1998.

The information contained in this catalog pertains to the new curriculum; however, the professional course sequence and pre-requisite courses are reviewed annually. For current information on the M.P.T. degree program, please contact the academic advisor for the Division of Physical Therapy at (304) 293-3611 or visit our web site at <http://www.hsc.wvu.edu/som/pther>.

Nature of Program

The WVU physical therapy program was established in 1970 under the auspices of the School of Medicine to help meet the need for physical therapists in West Virginia. The program is accredited by the Commission on Accreditation in Physical Therapy Education, a specialized accrediting body recognized by the Council on Postsecondary Accreditation. One class of 30 full-time students is accepted each year for the final three years of an entry-level master's degree program.

Students admitted into the program complete ten semesters (four are summer sessions) of combined classroom, laboratory and clinical education, and part-time and full-time supervised clinical practice in various clinics in West Virginia and other states. An entry-level master's (M.P.T.) degree is awarded to those completing the program, and entitles the graduate to apply for examination for state licensure. A license to practice physical therapy is required by all states.

Admission Requirements

Recommended high school preparation for physical therapy includes courses in biology, chemistry, algebra, trigonometry, physics, and social sciences. Computer literacy is recommended.

Because individualized instruction in laboratories and clinics is an essential component of the program, enrollment must be limited. All students who wish to enter the program must apply for admission and must have completed or be enrolled in the courses listed under "Courses Required for Application." These courses are available at most colleges and usually require two years to complete. Students with degrees in other fields are welcome to apply but must also complete these courses.

Courses Required for Application*

Pre-Physical Therapy Courses

Biology (with lab)	8	BIOL 1, 2 and 3, 4
Chemistry (with lab)	8	CHEM 15 and 16
Physics (with lab)	8	PHYS 1 and 2
Introductory psychology	3	PSYC 1
Developmental psychology (Life-span)	3	PSYC 141
Introductory statistics	3	STAT 101

WVU Liberal Studies Requirements

English composition	6	ENGL 1 and 2
Cluster A courses**	12	

(Humanities and fine arts; courses in three disciplines, including two courses in one discipline)

Cluster B courses**	6	
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(Social and behavioral sciences; two courses in two different disciplines, neither of which is psychology)

*Please see the *WVU Undergraduate Catalog* course descriptions for course details. Courses at other universities must be equivalent to the WVU required courses.

**See Liberal Studies section of the catalog for specific courses acceptable in each Cluster. Three hours in either Cluster A or Cluster B courses must focus substantially on the study of a foreign or minority culture or on women and/or issues of gender.

The courses listed are minimum requirements for application. Other suggested electives are: speech communication, any course dealing with Appalachian or rural studies, and an introductory computer science course. Students are encouraged to pursue studies in additional courses of interest. Students who wish to substitute a course for one of those listed should contact the Division of Physical Therapy for permission and provide a written description of the proposed substitute.

Applicants must have both a minimum cumulative and a minimum pre-physical therapy science GPA of 3.0. All applicants must have taken the Allied Health Professions Admission Test prior to the application deadline, and submit two recommendations from physical therapists (not relatives) with whom they have worked in clinical settings. A minimum of 60 hours of clinical volunteer or work experience is recommended. It is suggested this experience be in at least two different settings.

Preference is given to West Virginia residents. A limited number of non-residents who have attended a West Virginia college or university, or who have other strong ties to the state, may also be considered.

Applicants who complete any of their pre-requisite courses at a college or university outside of West Virginia must submit a catalog or photocopy of the catalog description for all pre-requisite courses taken.

Application forms are available beginning December 1 from the Office of Admission and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815. All application materials must be received from the applicant no later than February 15. Qualified applicants are interviewed by the physical therapy admissions committee. Those considered to demonstrate the greatest potential for success are recommended for admission into the program.

Graduation Requirements

Students admitted into the program must complete all required courses of each term with a grade of at least C or P in each, and must maintain a minimum GPA of 2.5 each term. In order to progress to the third (graduate) professional year, a cumulative grade point average of 3.0 is required. Any student who does not meet these requirements may be placed on probation, suspended, or dismissed from the program. The Division of Physical Therapy reserves the right to suspend or dismiss any student who does not perform at an overall level considered satisfactory for patient care.

Beginning with the second semester of the junior year, the student will begin clinical education experiences which are designed at preparing the student to practice physical therapy. The clinical education program consists of part-time (one day per week; one week per semester) experiences until the end of the second year of the program. During the summer between the second and third years of the program, a full-time twelve week clinical education rotation is done which satisfies the West Virginia Board of Trustees requirement for practice in a rural setting. In the spring of the third year (February through May), students have a second full-time clinical education experience consisting of twelve weeks total (may be six in two different settings). This clinical education experience allows the student to explore practice in a variety of health care settings. Students must be prepared to pay for travel, meals, and lodging while participating in clinical rotations.

Required Physical Therapy Curriculum

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
PHYS 241	4	EX PHYS 165	3
PT 100	4	PT 106	4
PT 101	3	PT 107	4
PT 102	2	PT 108	3
PT 103	2	PT 109	1
PT 104	4	PT 184	1
Total	19	PT 221	3
		Total	19
<i>Summer Years 1-2</i>	<i>Hrs.</i>		
PT 199	4		

Second Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
PT 185	2	PT 216	2
PT 201	4	PT 217	2
PT 202	2	PT 219	3
PT 204	3	PT 220	4
PT 206	3	PT 225	3
PT 210	4	PT 250	4
Total	18	Total	18

<i>Summer Years 2-3</i>	<i>Hrs.</i>
PT 384	6

Third Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
PT 300	2	PT 350	3
PT 301	3	PT 351	3
PT 302	3	PT 353	3
PT 303	2	PT 391	3
PT 305	3	PT 385	6
PT 306	4	Total	18
Total	17		

<i>Summer I, Year 3</i>	<i>Hrs.</i>
PT 380	2
PT 381	1
PT 382	0-3 (var)
Total	3-6

Graduated August

Medical Technology

Jean D. Holter, Ed.D., Director.

Degrees Offered:

Bachelor of Science, Master of Science

Introduction

The WVU School of Medicine admitted the first medical technology students in the 1945-1946 academic year. In 1987, the program started a part-time curriculum, a refresher curriculum, and a career-laddering mechanism with Allegany Community College, West Virginia Northern Community College, and Fairmont State College.

The primary aim of the undergraduate medical technology program is to provide a strong educational background in the clinical laboratory sciences.

The purposes are:

- To provide a program that meets the academic standards of the University.
- To provide medical technologists for hospitals, public health, and research laboratories.
- To prepare medical technologists for teaching and supervisory positions.

- To provide an educational background accepted for graduate work.

The primary purpose of the graduate program in medical technology is to prepare students as supervisors of hospital clinical laboratories, to teach a specific laboratory area, or to direct a medical technology program.

Ruby Memorial Hospital (WVU Hospitals, Inc.), is the primary teaching hospital for the medical technology program. The hospital is part of the Robert C. Byrd Health Sciences Center of West Virginia University. The hospital is a tertiary care teaching hospital and referral center; it is a 376 bed facility. The clinical laboratories are on the third floor and occupy approximately one-fourth of the floor. The laboratories are full-service including hematology, chemistry, special chemistry, radioimmunoassay, blood bank, microbiology, mycology, virology, and immunology. Students may be required to fulfill part of their rotations at extramural sites in West Virginia.

The medical technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The present accreditation, for seven years, will be reviewed in 2002.

Admission Requirements

Premedical Technology

Admission requirements for the first year (pre medical technology) are the same as those for the WVU College of Arts and Sciences. (See the WVU Undergraduate Catalog).

Medical Technology Program

Admission to the medical technology program includes course requirements, grade-point average, a personal interview, letters of recommendation, and the Allied Health Professions Admissions Test (AHPAT).

The prerequisite course requirements are:

English: six hours of composition and rhetoric (ENGL 1 and 2).

Biology: eight hours of general biology (BIOL1, 2, 3 and 4).

Chemistry: 12 hours; eight hours of inorganic chemistry (CHEM 15 and 16) and four hours of organic chemistry (CHEM 131)*

Physics: eight hours of general physics (PHYS 1 and 2)

Mathematics: six hours; minimal requirements are college algebra and trigonometry (MATH 3 and 4)

Liberal Studies Program: 21-24 hours of electives; 12 hours each of Cluster A and Cluster B

*Transfer students must complete an organic chemistry course(s) (8 hours) that includes aliphatic and aromatic compounds. The course must include a laboratory. Any student not completing CHEM 131 must take CHEM 133 and 135, 134 and 136, or an equivalent.

Applicants should have a minimum grade-point average of 2.5 (cumulative and science). Applicants may be admitted on probation if their grade-point average (cumulative or science) is less than 2.5. Applicants with less than a 2.0 grade-point average, either cumulative or science, will not be admitted. A grade-point average of 2.5 or above does not necessarily assure admission.

A personal interview with the medical technology admission committee is required.

Two letters of recommendation from instructors in physics, chemistry, or biology are required.

Allied Health Professions Admissions Test (AHPAT) must be taken prior to applying to the Medical Technology Program. Testing is available at WVU in November and January. Further information can be obtained from the Medical Technology Program Office.

Admission of international students is in compliance with West Virginia University regulations. At least one science course (chemistry, physics, or biology) must be completed at an institution of higher education in the United States.

Application Procedure

Application forms for admission to the professional program are available after December 1 from the Office of the Assistant Director of Admissions and Records, West Virginia University Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815. There is an application fee of \$10.00. The priority date for returning the application form is January 15. The deadline date is February 1 if the student expects to enter the program the next fall semester.

Students at West Virginia University or Potomac State College are not transferred automatically from the preprofessional course to the professional course. Students are selectively admitted to the program.

Certification

Graduates from the medical technology program at West Virginia University are eligible to take national examinations for certification as medical technologists or clinical laboratory scientists. These examinations are conducted by national certification agencies such as American Society of Clinical Pathologists and the National Certifying Agency for Laboratory Personnel. Many institutions require certification for employment.

Graduation Requirements

Junior Year: A student must maintain a grade-point average of 2.0 for each semester to be advanced to the senior year. Any student having one or more F's in a semester or more than one D at the end of the junior year may be suspended from the program. The academic and professional standards committee must recommend any student for advancement to the senior year. A satisfactory grade-point average does not assure advancement.

Senior Year: A student must maintain a grade-point average of 2.0 for each semester of the senior year. Graduation requires satisfactory completion of all academic work. Graduation requires the recommendation of the faculty of the School of Medicine.

Curriculum Plan

Pre-Medical Technology

First Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
CHEM 15 <i>Inorganic</i>	4	CHEM 16 <i>Inorganic</i>	4
Elective*	3	ENGL 1 <i>Comp. and Rhet</i>	3
MATH 3 <i>Algebra</i>	3	MATH 4 <i>Trigonometry</i>	3
BIOL 1 and 3	4	BIOL 2 and 4	4
MTEC 1** <i>Orientation</i>	2	Total	14
Total	16		

Second Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
Electives*	9	CHEM 131—Organic	4
PHYS 1	4	Electives*	6-9
ENGL 2 Comp. and Rhet.	3	PHYS 2	4
Total	16	Total	14-17

* Electives from Cluster A and Cluster B are to be selected to meet the Liberal Studies Program requirements.

**MTEC 1 is not a required subject. It is highly recommended that all students take this course. MTEC 1 is offered each semester.

Medical Technology

Third Year (Medical Technology 1)

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
MTEC 100	4	MBIO 224	1
MTEC 202	2	MBIO 223	5
BIOC 139	5	MTEC 101	4
PHYS 241	4	MTEC 210	1
Elective	3	MTEC 291	2
Total	18	MTEC 229	1
		Total	14

Fourth Year (Medical Technology 2)

Students receive didactic and clinical instruction in the WVU Hospitals, Inc. laboratories after completion of the junior year. The course of study begins with the summer session and covers three academic semesters. If the student has excessive absences during the senior year, competencies not completed must be made up during the summer sessions.

Students register for the following courses during the three semesters of study.

	Hrs.
MTEC 200 <i>Orientation</i>	No Credit
MTEC 201 <i>Phlebotomy</i>	1
MTEC 220 <i>Immunohematology and Blood Banking</i>	2
MTEC 221 <i>Immunohematology and Blood Banking Laboratory</i>	5
MTEC 230 <i>Clinical Chemistry</i>	2
MTEC 231 <i>Clinical Chemistry Laboratory</i>	5
MTEC 240 <i>Clinical Hematology</i>	2
MTEC 241 <i>Clinical Hematology Laboratory</i>	5
MTEC 250 <i>Clinical Microbiology</i>	2
MTEC 251 <i>Clinical Microbiology Laboratory</i>	5
MTEC 260 <i>Instrumentation</i>	2
MTEC 265 <i>Laboratory Management</i>	2
MTEC 270 <i>Clinical Microscopy</i>	1
MTEC 271 <i>Clinical Microscopy Laboratory</i>	1
MTEC 275 <i>Medical Relevance of Laboratory Analysis</i>	1
MTEC 280 <i>Clinical Immunology</i>	3
Total	39

Master of Science Program in Medical Technology Admission

Applicants must have a baccalaureate degree in medical technology or an allied health field from an accredited college or university and must be a certified medical technologist with an acceptable certifying agency.

The area of concentration desired by the student is considered in the undergraduate record evaluation as follows:

Individuals who desire to do special study in clinical chemistry, hematology, or immunohematology must have completed a minimum of eight hours in physics, three hours in mathematics, and 12 hours in chemistry to include organic chemistry. Individuals who desire to do special study in microbiology must have completed a minimum of 12 hours of chemistry, including organic chemistry and 16 hours in the biological sciences.

A minimum of one year's experience in a clinical laboratory is required. Applicants must have a minimum undergraduate grade-point average of 2.75 (based on a 4 point scale). Results of the aptitude portion of the Graduate Record Examination must be presented. Two professional letters of recommendation are required.

Application Procedure

A preliminary application is filed in the medical technology program office, along with two reference letters and the results of the aptitude portion of the Graduate Record Examination. These three items are reviewed, and if all prerequisites are met, the applicant must make formal application to West Virginia University. Once the formal application and grade transcripts are received, the file is reviewed by the admissions committee. A personal interview is required before final admission to the program.

Graduation Requirements

- Satisfactory completion of all course work with a 3.0 GPA.
- A problem study in the major/minor area.
- Successful completion of a written comprehensive examination in major and minor interest fields.
- Successful completion of an oral defense of the problem study.

Master of Science

It is expected that students who enter the graduate program in medical technology at West Virginia University will have a goal in mind and will have a special field of interest in medical technology. The course of study the student follows is tailored to the needs of the student as far as it is possible to do so. A minimum of 36 semester hours of credit, including a problem study, is required for the degree.

The student selects:

- A major area of concentration from education, supervision, or administration.
- A minor area from clinical microbiology, clinical chemistry, clinical hematology, or immunohematology.

A minimum of 15 semester hours of work from the following courses is selected, dependent upon the major area of concentration.

Required Courses	Hrs.
Educational Psychology 320 <i>Introduction to Research</i>	3
If the major area is education, the following courses are available:	
CHPR 320 <i>Roles and Functions of Health Education</i>	3
ED A 320 <i>Personnel Administration</i>	3
ED A 351 <i>Administrative Procedures in Adult Education</i>	3
ED A 462 <i>Higher Education Law</i>	3
ED A 463 <i>Higher Education Finance</i>	3
ED F 320 <i>Philosophic Systems and Education</i>	3
If the major area is supervision and/or administration, the following courses are available:	
ED A 320 <i>Personnel Administration</i>	3
ED A 462 <i>Higher Education Law</i>	3
ED A 463 <i>Higher Education Finance</i>	3
PUBA 341 <i>Administrative Organization and Management</i>	3
PUBA 344 <i>Public Personnel Administration</i>	3
PUBA 345 <i>Public Administration and Policy Development</i>	3
The following courses are available for either major for additional credit:	
ED P 231 <i>Sampling Methods</i>	3
ED P 260 <i>Media and Microcomputers in Instruction</i>	3
ED P 301 <i>Introductory Behavior Analysis</i>	3
ED P 321 <i>Design of Experiments</i>	3
ED P 343 <i>Statistical Analysis in Education</i>	3
ED P 364 <i>Precision Teaching</i>	3
ED P 370 <i>Programmatic Research</i>	3
CHPR 308 <i>Community Health: Death Education</i>	3
CHPR 309 <i>Community Health: Drug Education</i>	3

Students may select courses in schools and colleges at West Virginia University other than the School of Medicine. Courses in management, economics, and education are available, as well as courses in the scientific disciplines of medical technology.

A course in statistical methods such as Educational Psychology 311, Statistics 311, or Community Medicine 311 is strongly recommended.

All students must complete a minimum of 18 semester hours in a science related to medical technology including MTEC 300 *Seminar* (three hours) and MTEC 397 *Problem Study* (six hours).

All full-time students register for one hour each semester in MTEC 300. Seminars include laboratory management, education in medical technology, and timely topics. A minimum of three hours of seminars to include all three of the above topics is required.

All students are required to pursue study on a problem in their areas of concentration. This study is reported in a thesis-style manuscript. For this study and report, students register in MTEC 397.

The total number of hours in MTEC 397 is determined by the student's program advisor. As many as nine semester hours in MTEC 397 may be taken during one semester, or, by arrangement with the advisor, credit hours may be taken over several semesters. In the final compilation for degree requirements, only six semester hours in MTEC 397 will count toward the fulfillment of the 36 required semester hours for the degree, even though the student may have registered for as many as 15 hours in MTEC 397.

At the discretion of the student's program advisor, other requirements in teaching, supervision, and administration may be necessary. The advisor works out with the student a plan of study for the student's entire graduate program. This plan is made at the end of the first semester of the student's graduate study. A copy of this plan of study is filed in the Health Sciences Center Graduate Programs Office. The student's problem study committee is also formed at this time.

Public Health

Department of Community Medicine

Kernard McPherson, EdD, Associate Chair, Educational Programs.
Alan Ductman, MD, MSC, Chair, Community Medicine.

Degree Offered:

Master's in Public Health

Master's in Public Health

The M.P.H. Program prepares students to fill roles where decisions are being made, in managed care and other integrated delivery systems, the medical products industry, health departments, and other governmental agencies, consumer groups, and community-based organizations.

The program admits qualified physicians and non-physicians. Physicians may also apply to the Occupational Medicine Residency Program and may designate the M.P.H. as part of their residency.

Goals of the M.P.H. program

- To improve the education and professional impact of those entrusted with public health responsibility in West Virginia.
- To improve the cost effectiveness, quality assurance, and competitive position of population-driven health policy decisions in West Virginia.
- To increase the interdisciplinary collaboration, and information base for that collaboration, of different kinds of personnel for whom the training is appropriate.
- To measure and improve the health status of the population of West Virginia.

Admissions Requirements

The admissions committee will review applications and supporting material twice per year; in November for spring and summer semesters, and June for fall semester. Requirements include a completed M.P.H. Graduate Program Application form; a completed WVU Graduate Admissions form; General Test of the Graduate Record Examination (GRE); official transcripts; a typed essay to include the applicants career objectives; a resume/CV; and three letters of reference. Full-time and part-time students are admitted.

Performance Standards

Full-time students can complete the program in four semesters including the practicum. Students are expected to maintain a 3.0 GPA. A faculty review is required if two grades of C or less are recorded. Three grades of C or lower will result in academic suspension.

Grades lower then C will not count toward satisfying graduate degree requirements. Students should petition for admission to candidacy for the degree by filing a plan of study approved by faculty advisors before completion of nine credit hours.

Program Requirements

Program requirements include completion of 22 required courses, 12 hours electives, and a nine hour practicum.

The required core courses are:	Hrs.
CMED 301 <i>Introduction to Public Health</i>	3
CMED 311 <i>Biostatistics</i>	3
CMED 325 <i>Biology, Society, and Human Health</i>	3
CMED 350 <i>Environmental Health</i>	3
CMED 360 <i>Public Health Epidemiology</i>	3
CMED 391A <i>Behavioral Science in PH</i>	3
CMED 391B <i>Policy and the Health System</i>	3
CMED 496 <i>Seminar</i>	1
CMED 389 <i>Practicum</i>	9

School of Nursing

E. Jane Martin, Ph.D., R.N., F.A.A.N., Dean.

Karen E. Miles, Ed.D., R.N., Associate Dean for Academic Affairs.

Michelle Janney, Ph.D., R.N., Associate Dean for HSC Clinical Services.

Jacqueline W. Riley, M.N., R.N., Assistant Dean for Student and Alumni Affairs.

Mona M. Counts, Ph.D., R.N., Chairperson, Department of Health Promotion/Risk Reduction.

C. Lynne Ostrow, Ed.D., R.N., Chairperson, Department of Health Restoration.

Patricia S. Simoni, Ed.D., R.N., Chairperson, Department of Health Systems.

Cynthia Armstrong Persily, Ph.D., R.N., Chairperson, Charleston Division.

Sandra Cotton, M.S.N., R.N., Director, Faculty Practice Plan.

Alita Sellers, Ed.D., R.N., Chairperson, Department of Nursing, WVU-P.

Frances Snodgrass, M.S.N., J.D., R.N., Interim Chairperson, Department of Nursing, WVUIT.

Degrees Offered:

Bachelor of Science in Nursing

Master of Science in Nursing

The mission of West Virginia University School of Nursing is to serve as a center for nursing education, research, and practice. The goals of the School, which flow from the missions of the school, the Health Sciences Center, and the University, guide the development of the undergraduate and graduate programs in nursing.

The basic B.S.N. program can be completed in four years in Morgantown or Montgomery. Consortium programs with Glenville State College and Potomac State College allow students to complete the first two years at Glenville or Potomac State and the last two years in Morgantown or at West Virginia University Institute of Technology in Montgomery, WV.

Class and course requirements are flexible to accommodate the registered nurse who is a full-time worker and a part-time student. Both the baccalaureate completion program for registered nurses and graduate programs are offered in multiple sites through the West Virginia Satellite Network (SATNET) and other advanced telecommunications systems.

Further information about all programs may be obtained by writing to the Assistant Dean for Student and Alumni Affairs, WVU School of Nursing, 6702 Health Sciences South, P.O. Box 9600, Morgantown, WV 26506-9600.

The Philosophy of School of Nursing

Nursing is an art and a science practiced by professionals in concert with individuals, families, and communities for the purpose of promoting health. Nursing is a learned discipline which perspective is the person-environment health process. The person is inseparable from the environment and interacts dynamically with the environment as a unified whole, thus maintaining integrity. This interaction enables the pursuit of choices and goals. Health is a process through which individuals, families, and communities maximize potential for living a self-determined life.

Health is promoted through the caring presence of the nurse in situations where capabilities are discovered, strengths are maximized, and development is nurtured. The caring presence is a relationship in which the nurse interacts with persons in the creative application of the discipline's art and science. Nurses collaborate with others to maximize resources for the benefit of the person.

The discipline of nursing is taught in an academic setting in which students must be educated to practice in a rapidly changing society. The knowledge base for nursing builds on content from the humanities and the sciences. Learning is a life-long process which is enhanced in a climate of personal acceptance of the learner as an integrated being. Faculty and students share the responsibility for creating an atmosphere that fosters the development of intellectual curiosity, systematic inquiry, critical thinking, self direction, caring relationships, and a commitment to continued learning.

Nursing is accountable to society for ensuring that the public interest is protected and served. To promote the relevance of the discipline to societal needs, faculty contribute to the development and evaluation of the discipline by engaging in creative endeavors that reflect a synthesis of teaching, practice, and research.

Undergraduate education in nursing prepares individuals capable of beginning professional nursing practice and provides a foundation for graduate education in nursing. Graduate education in nursing at the master's level prepares persons to engage in advanced nursing practice and provides a foundation for doctoral study in nursing.

Accreditation

The baccalaureate program received initial accreditation with graduation of the first class in 1964. The master's program was initially accredited in 1981. Both programs have continued to maintain accreditation with the appropriate regional and national accrediting agencies.

Undergraduate Program

The baccalaureate program (B.S.N.) accommodates both high school and college students who aspire to a career in nursing graduates, and registered nurses (R.N.) who are licensed graduates of associate degree and diploma nursing programs and want to continue their career development.

Students may complete the pre-nursing requirements at any accredited college or university. The first year of nursing courses (the sophomore year) may be completed in Morgantown, Montgomery, at Glenville State College, or Potomac State College. Students who begin their nursing courses at Glenville or Potomac State College complete their junior and senior years on the Morgantown or WVUIT campus. As a part of the University System's commitment to the West Virginia Rural Health Education Partnerships (WVRHEP) program and health care for all West Virginians, all health sciences students in state-supported schools are required to complete a rural rotation of at least three months as a part of degree requirements. **Nursing students will complete this rotation at a designated WVRHEP site during their senior year.**

Registered nurses can complete requirements for a baccalaureate degree in nursing on the Morgantown, Montgomery, and Parkersburg campuses and through extension at selected other sites. At the extension sites all required non-nursing courses are earned in institutions of higher learning in the respective

locations. Credit may be earned by enrollment, College Entrance Examination Board Advanced Placement Program, and by the advanced standing examinations available in the particular institution. Nursing courses are offered at a rate of four to 11 credit hours a semester and are scheduled to provide opportunity for completion of degree requirements in two to three years.

Undergraduate education in nursing prepares graduates to begin professional nursing practice and provides a foundation for graduate education in nursing. Upon completion of the baccalaureate curriculum, the nurse can practice in a variety of settings and with clients across the life span. The graduate uses process skills to maintain, restore, or improve the health states of clients, and applies leadership theory to effect change. The baccalaureate graduate uses a conceptual base to evaluate and modify the nursing role in relation to client needs and expectations and is prepared to support efforts in expanding nursing knowledge.

Fees, Expenses, Housing, and Transportation

Students enrolling at the Morgantown campus pay the fees shown in the *WVU Health Sciences Center Catalog* charts page 48, plus special fees and deposits as required. Students enrolling at other sites pay the fees shown in the catalog for that site. **Fees are subject to change without notice.** Students' expenses vary widely according to the course of study and individual tastes. Students are expected to provide their own transportation, equipment, and instruments for the clinical courses. Specific immunizations, including hepatitis B, are required.

Information concerning financial assistance and application forms may be obtained by visiting or writing the HSC Financial Aid Office, Health Sciences North, P.O. Box 9810, Morgantown, WV 26506-9810, telephone (304) 293-3706.

The University Housing and Residence Life Office, G-18 Towers, phone (304) 293-3621, provides information concerning University-owned housing. The Office of Student Life in E. Moore Hall, phone (304) 293-5611, provides information concerning privately owned, off-campus housing.

Some clinical experiences require the student to travel in a multi-county area. Students are responsible for providing their own transportation to all clinical experiences.

Admission to Basic Program

Admission to the basic program is highly competitive. Meeting the minimum requirements to apply does NOT guarantee admission. Ninety percent of the space in each entering class, regardless of site, is given to West Virginia residents. The opportunity for direct admission as freshmen is available to selected students with a high school grade-point average of 3.6 or higher and an ACT composite score of 26 or better or equivalent SAT score.

Applicants are eligible for review by the admissions, progression, and graduation committee after completion of one full semester of college course work. The academic record is the major factor in the decision on admission. To qualify for consideration, a West Virginia resident must have a grade-point average of 2.7 or above on a scale of 0.0 to 4.0 on all college work attempted, and an ACT composite score of 20 or greater or an equivalent SAT score.

Application to the basic program for all sites must be made by February 15 of the year the candidate wishes to be admitted. Application forms are distributed after December 1 by the Health Sciences Center Office of Admissions and Records. Completed applications and the required application fee, payable to West Virginia University, may be presented in person or mailed directly to: ATTN: Nursing Secretary, HSC Office of Admissions and Records, 1170 Health Sciences Center North, P.O. Box 9815, Morgantown, WV 26506-9815. February 15 is the deadline for receipt of all application materials, including transcripts.

Admission as a Transfer Student

An applicant with nursing credit from an accredited college or university is eligible for consideration for admission by presenting a record of courses comparable to those required in this curriculum and meeting other School of Nursing admission requirements. The applicant must provide a statement of good standing from the program in which currently enrolled. Acceptance and placement in the program is dependent on the individual's academic record and the number of spaces available in the program. Application should be initiated three months prior to the beginning of the semester in which the applicant wishes to begin nursing courses. Transcripts and other required materials must be received no later than two months before the start of the entering semester. Candidates apply to ATTN: Nursing Secretary, HSC Office of Admissions and Records, 1170 WVU Health Sciences Center North, P.O. Box 9815, Morgantown, WV 26506-9815, requesting consideration for advanced placement as a transfer student.

Admission for Registered Nurses

Registered nurses are admitted directly to the School of Nursing. Acceptance and placement in the program are dependent upon the individual's academic record and upon the number of spaces available in the program. An unrestricted license to practice nursing and a grade-point average of 2.5 or better on all college work attempted are required to be eligible for consideration. Candidates with a restricted license will be considered on an individual basis. Applicants whose grade-point average falls below 2.5 may petition to the dean for special consideration. Registered nurses who wish to take only selected satellite courses may apply for non-degree seeking status.

Application forms for the Morgantown campus may be obtained from ATTN: Nursing Secretary, Office of Admissions and Records, 1170 WVU Health Sciences Center North, P.O. Box 9815 Morgantown, WV 26506-9815. Application forms for the WVUIT and WVU-P sites may be obtained from the Office of Admissions and Records or Department of Nursing at those sites.

Academic Standards and Graduation Requirements

To be in good academic standing, students must:

1. Maintain a cumulative grade-point average of 2.5 or better in all work attempted
2. Pass all courses with a grade of C or better.

A student who receives a grade of D, F, WU, or W in a required nursing course may repeat that nursing course once. A student may repeat only one nursing course. Students must complete with a grade of C or better, any nursing course in which a grade of D, F, WU, or W has been received. Students who do not maintain a cumulative GPA of 2.5 or higher will be placed on probation for one semester. Students on probation who do not raise their cumulative GPA to 2.5 or higher after one semester will be dismissed from the School of Nursing. Nursing courses and pre- and co-requisite courses in which students earn a grade of D, F, WU, or W must be repeated prior to the student's progression to the next course/s in the nursing sequence. Students who repeat a nursing course and earn a grade of D, F, WU, or W will be dismissed from the School of Nursing. Any general education course that is not a pre- or co-requisite of nursing courses and in which a grade of D has been earned must be repeated prior to graduation if it is to be counted toward graduation requirements. The baccalaureate of science in nursing degree is conferred upon completion of 136 hours and all required courses.

Curriculum for the Basic Student

B.S.N. suggested plan of progression (Morgantown campus).

First Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
CHEM 11	4	CHEM 12	4
PSYC 1	3	ENGL 1	3
SOCA	3	BIOL 2 and 4	4
HN&F 71	3	PSYC 141	3
Cluster A or MATH 3	3	NSG 10	3
Total	16	Total	17

Second Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
NSG 21	3	NSG 41	2
NSG 23	1	NSG 43	2
NSG 25	3	NSG 45	4
ANAT 101	4	PHYS 141	4
MBIM 26	3	PHAR 160	3
ENGL 2	3	NSG 61	3
Total	17	Total	18

Third Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
NSG 131	2	NSG 151	2
NSG 133	2	NSG 153	2
NSG 135	5	NSG 155	5
NSG 136	3	NSG 156	3
Cluster A/B	3	NSG 199	1
STAT 101	3	Cluster A/B	3-6
Total	18	Total	16-19

Fourth Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
NSG 221	3	NSG 241	3
NSG 223	2	NSG 243	2
NSG 225	6	NSG 245	6
NSG 276	3	NSG 291 (NCLEX Review)	1
NSG 291 (NCLEX Review)	1	Cluster A	3
Cluster A	3	Total	15
Total	18		

The sequence of courses may vary from campus to campus. See WVUIT or WVU-P catalogs for site-specific information.

Curriculum for the Registered Nurse Student

For the registered nurse student, the associate degree graduate will transfer in up to 50 hours of lower-division, undifferentiated nursing credit. Diploma school graduates may earn up to 50 hours of credit by successfully passing with a grade of C or better selected NLN achievement examinations. If a grade of C is not achieved, a specific individual remediation plan will be developed. Any remediation plan must be satisfactorily completed prior to enrollment in upper-division nursing courses. A minimum of 30 hours of general education courses that meet the University Liberal Studies Program and School of Nursing requirements should be completed before enrollment in the first nursing courses. All R.N. students must establish credit by enrollment, challenge, or acceptable CLEP examinations in:

English 1 and 2	6 hours
Statistics	3 hours
Cluster A	12 hours
Cluster B	12 hours

(Must include Psychology 1 Growth and Development and a sociology course)

Cluster C	12 hours
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(May select from chemistry, biology, nutrition, anatomy and physiology, microbiology, pharmacology, and computer science. At least one course must include a laboratory.)

Completion of additional general education courses beyond the 30 hours is recommended prior to beginning nursing courses if the R.N. student wishes to carry a part-time course load.

The purpose of the first nursing courses is to facilitate transition into professional nursing. Special emphasis is placed on socialization into role and expectations of this role. **An unrestricted West Virginia R.N. license is required for enrollment in the first nursing courses.**

All R.N. students are required to enroll in the following nursing courses: Nursing 61 *Health Assessment*, Nursing 140 *Professional Role Transition*, Nursing 143 *Seminar VII: Professional Role Development*, Nursing 199W *Writing in Nursing*, Nursing 276 *Introduction to Research*, and Nursing 233 *Seminar VIII. Seminar VIII* is taken with or following Nursing 221-245. R.N. Students may establish credit for the following senior courses by enrollment or challenge examination: Nursing 221 *System Responses to Physiological Dysfunction*, Nursing 225 *Nursing Interventions 5*, Nursing 241 *Community Response to Health Promotion*, and Nursing 245 *Nursing Interventions 6*. Certification in school health nursing is available to all students who meet additional course and experiential requirements.

R.N.-B.S.N. Suggested Progression

Progression will vary depending on the amount of non-nursing courses that must be completed and whether the student wishes to be part-time or full-time. Note that the required R.N.-B.S.N. seminars are currently offered ONLY in the semester indicated below. This progression plan is projected on the basis that all non-nursing requirements have been completed.

First Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
NSG 140	3	NSG 143	3
NSG 61	3	NSG 199W	1
Total	6	Total	4

Senior Year

<i>First semester</i>	<i>Hrs.</i>	<i>Second semester</i>	<i>Hrs.</i>
NSG 221	3	NSG 241	3
NSG 225	6	NSG 245	6
NSG 276	3	(Rural health rotation)	
NSG 233	3	Total	9
Total	15		

Note: Based on background and experience, the R.N. student may establish credit by examination for all senior year courses except NSG 276 and 233. A written examination is used for NSG 221 and 241. A portfolio is used to establish credit for NSG 225 and 245. Only those students who have prior experience in the content areas covered by these courses are eligible to use the credit by examination option.

Graduate Program

The School of Nursing offers a program of study leading to the Master of Science in Nursing (M.S.N.) degree in rural primary health care. The functional areas of study available are advanced practice nursing (nurse practitioner) and nursing education. The focal populations are family health, child health, and women's health. Additional sub-specialties may become available based on student demand and faculty availability. The school also offers a post-graduate nurse practitioner certification program in the same specialties for those who already have an M.S.N. The programs are offered at the University main campus in Morgantown, the Charleston Division of WVU, HSC, and at selected Extension sites.

Study Plan

The pattern and duration of the student's study plan is determined in consultation with a faculty advisor and is based upon the student's background and goals. The program can be completed in five semesters, including a summer session, of full-time study at the Morgantown campus. The average full-time load is 9-12 credit hours per semester.

Graduate education in nursing prepares clinicians capable of leadership in developing and expanding nursing knowledge, skills, and practice competencies in light of societal needs. Preparation at the master's level provides the opportunity for the student to demonstrate self-direction and effective interactions with other health professionals in improving nursing practice and the health care delivery system. The master's graduate is able to provide quality health care in a variety of settings while clarifying and redefining nursing roles.

As a part of the University System's commitment to the West Virginia Rural Health Education Partnerships (WVRHEP) program and health care for all West Virginians, all health sciences students in state-supported schools are required to complete a rural rotation of at least three months prior to completion of degree requirements. **Nursing students will complete this rotation at a designated WVRHEP site during their practicum courses. Every effort will be made to accommodate requests for placement in specific sites, especially sites near a student's home.**

Admission Requirements

The criteria must be met for consideration for **regular** admission to graduate study in the School of Nursing. The applicant must:

1. Meet WVU requirements for admission to graduate study.
2. Have a cumulative grade-point average of 3.0 or higher on a 4.0 scale on all college work attempted.
3. Have GRE scores within the last five years with minimum scores of 400 verbal and analytical and 350 quantitative and totaling 1250 or higher.
4. Have a current, unrestricted R.N. license in at least one state.
5. Be a B.S.N. graduate of a nationally accredited school.
6. Have completed three credits of statistics acceptable for transfer with grade of C or better.
7. Have completed a health assessment course which included physical examination skills with a grade of C or better and acceptable for transfer.
8. Submit three letters of reference.
9. Submit a type-written statement of professional goals (limited to two type-written, double-spaced pages).
10. One or more years of experience as a registered nurse is strongly preferred.

A B.S.N. degree is mandatory. Applicants who do not meet number 2 or number 3 above, but not both, and who do not meet number 6 and/or number 7 may be considered for **Provisional** admission on an individual basis. The specific provisions which must be met for progression to **regular** status will be noted in the admission letter. **Admission to the M.S.N. program is competitive. Meeting the minimum requirements to apply does *not* guarantee admission.**

Progression Standards

In order to progress in the Master of Science in Nursing curriculum, a student is expected to meet the following performance standards:

1. Achieve an overall academic grade-point average of at least a 3.0 in all work attempted in the master's program. A student may only carry forward one C grade in a nursing course. A second C in a nursing course will result in dismissal from the program.
2. A student who falls below the 3.0 GPA on nine or more credit hours has one semester to bring up their GPA to the 3.0 requirement.
3. A student may repeat only one nursing course and only one time.

Degree Requirements

1. Completion of 44 semester credit hours, including 34 hours in nursing and seven hours of cognates specific to the area of concentration.
2. Completion of a guided research experience (three hours).
3. Pass a comprehensive examination in the last semester of enrollment.
4. Removal of all conditions, deficiencies, and incomplete grades. Credit hours for courses in which the grade is lower than C will not count toward satisfying graduate degree requirements.

Required courses must be taken for letter grades (A, B, or C). Electives may be opted for pass (P) or fail (F) grades, subject to the approval of the advisor.

Post Graduate Nurse Practitioner Certificate Program

This program prepares master's-prepared nurses as nurse practitioners.

The fields of specialization offered are the same as those available in the M.S.N. curriculum. Those who complete the program of study are eligible to sit for the examination for national certification as a nurse practitioner.

Certificate Program Application Requirements

To be considered for admission, the applicant must have a master's degree in nursing from an NLN accredited program with a minimum cumulative GPA of 3.0 or better and an unrestricted R.N. license in an least one state.

Certificate Program Requirements

Each student's program will be individualized based on their educational and experiential background. Prerequisites to registration for the four required clinical courses are evidence of competence in advanced physiology/pathophysiology, applied therapeutics (pharmacology), and physical examination skills. Competence may be established by transfer of academic credit, enrollment in academic or CEU courses, or challenge examination. The four required courses for post master's certification as a nurse practitioner are: NSG 336 *Clinical Diagnosis across the Lifespan*, the speciality cognate, speciality practicum I, and speciality practicum II.

In addition, the student must maintain a 3.0 GPA and satisfactory clinical ratings.

Deadlines

The application process for both the master's and post-master's program must be completed by March 1 for summer and fall enrollment and October 1 for spring enrollment. Class sizes are limited, based on available faculty resources and space. Based on the usual schedule of course offerings, students should plan to begin their course of study in the fall semester, unless there is a need to complete prerequisite courses.

Application Process

Applicants need to complete the following steps in order to be considered for admission:

- 1. Complete two application forms as indicated below and return to the appropriate offices to avoid unnecessary delay in the review process.
 - a. Application for Admission to Graduate Studies (available from admissions and records). Return this form with the non-refundable service fee to: Office of Admissions and Records, West Virginia University, P.O. Box 6009, Morgantown, WV 26506-6009.
 - b. Application for Admission to Graduate Study in the School of Nursing Programs (available from Student and Alumni Affairs Office). Return to: WVU School of Nursing Student and Alumni Affairs Office, P.O. Box 9600, Morgantown, WV 26506-9600.
- 2. Request an official transcript of records from each college or university attended. Transcripts and records should be sent directly to the WVU Office of Admissions and Records, Graduate Admissions Unit, P.O. Box 6009, Morgantown, WV 26506-6009.
- 3. Send three recommendation letters directly to the WVU School of Nursing Student and Alumni Affairs Office, P.O. Box 9600, Morgantown, WV 26506-9600.

The parameters used for review of applicants include: academic achievement, professional experience, career goals, and recommendations. Once admitted the student is assigned a faculty advisor who guides the student in curricular and academic matters. Enrollment in nursing courses is based on readiness and availability of space.

M.S.N. Curriculum

	Hrs.
M.S.N. Nursing Theory, Practice, and Research (37-40 hours)	
NSG 322 <i>Theory/Critical Analysis</i>	3
NSG 324 <i>Research, Evaluation, and Statistics</i>	5
NSG 326 <i>Health Policy, Issues, and Ethics</i>	3
NSG 328 <i>Advanced Pathophysiology</i>	4
NSG 330 <i>Health Promotion for All Ages</i>	2
NSG 332 <i>Concepts of Advanced Nursing</i>	2
NSG 333 <i>Family, Community, Rural Health Systems</i>	2
NSG 336 <i>Clinical Diagnosis Across the Life Span</i>	3
NSG 340/50/80 <i>Speciality Course</i>	4
NSG 341/51/81 <i>Speciality Practicum 1</i>	5
NSG 342/52/75/82 <i>Speciality Practicum 2</i>	5
NSG 391 <i>Advanced Pharmacology</i>	3
NSG 397 <i>Research</i>	3
Total	44

Premises for Progression Through the Masters Curriculum

1. There are seven core nursing courses required for all master's students. These are: Nursing 322 *Theory and Critical Analysis*, Nursing 324 *Research, Evaluation and Analysis*, Nursing 326 *Health Policy, Issues and Ethics*, Nursing 328 *Advanced pathophysiology*, Nursing 330 *Health Promotion for All Ages*, Nursing 332 *Concepts of Advanced Nursing*, and Nursing 333 *Family, Community, Rural Health Systems*. Most core course are offered on MDTV to allow progression on a full and part-time plan of study. Plans are underway to offer others over the World Wide Web Network.
2. Nursing 322 *Theory and Critical Analysis* is a pre- or co-requisite to all core courses.
3. Nursing 332 *Concepts of Advanced Nursing* is a pre- or co-requisite to Nursing 326 *Health Policy, Issues and Ethics*, Nursing 333 *Family, Community, Rural Health Systems*, and Nursing 336 *Clinical Diagnosis Across the Lifespan*.
4. The core courses must be completed prior to the practica courses with the exception of Nursing 326 *Health Policy, Issues and Ethics*. This means that all core courses, with the exception of Nursing 326 are pre- or co-requisite to the practica courses.
5. The speciality course is pre- or co-requisite to the first practicum course.
6. There are no pre-requisites to the Nursing 328 *Advanced Pathophysiology* or Nursing 391 *Advanced Pharmacology* courses.
7. Nursing 391 *Advanced Pharmacology* must be completed prior to enrollment in the first practicum course except for students enrolled in the education tract.
8. Nursing 328 *Advanced Pathophysiology* must be completed prior to enrollment in Nursing 336 *Clinical Diagnosis Across the Lifespan*.
9. The pre-requisite health assessment course must be completed prior to taking Nursing 336 *Clinical Diagnosis Across the Lifespan*. Students who do not meet this undergraduate requirement should take the course the summer before beginning graduate study. Students have the option to challenge health assessment.
10. The pre-requisite undergraduate statistics course must be completed prior to taking Nursing 324 *Research, Evaluation and Analysis*.
11. Paper/thesis work is expected to begin after completion of NSG 324.
12. An enrollment of at least eight students is required for offering any course or speciality track.
13. The speciality and practica courses will be offered at Morgantown and Charleston when there is enrollment of eight students.

M.S.N. Suggested Plan of Study

(Note: all courses are not available every semester.)

First Year (full time)

<i>Fall Semester</i>	<i>Hrs.</i>	<i>Spring Semester</i>	<i>Hrs.</i>
NSG 322 <i>Theory*</i>	3	NSG 324 <i>Research*</i>	5
NSG 332 <i>Concepts*</i>	2	NSG 336 <i>Diagnosis*</i>	3
NSG 328 <i>Adv. Patho.</i>	4	NSG 330 <i>Promotion</i>	2
Total	9	Total	10

Summer I

NSG 333 <i>Rural Fam</i> **	2
NSG 391 <i>Adv. Pharm.</i>	3
NSG 397	1
Total	6

Second Year (full time)

<i>Fall semester</i>	<i>Hrs.</i>	<i>Spring semester</i>	<i>Hrs.</i>
NSG 340, 350, or 380		NSG 342, 352, 375, or 382	
<i>Specialty Cognate</i>	4	<i>Practicum II</i>	5
NSG 341, 351, or 381		NSG 326 <i>Policy</i> *	3
<i>Practicum I</i>	5	NSG 397	1 or 2
NSG 397 (Option)	1	Total	9 or 10
Total	9-10		

First Year (part time)

<i>Fall semester</i>	<i>Hrs.</i>	<i>Spring semester</i>	<i>Hrs.</i>
NSG 322 <i>Theory</i> *	3	NSG 324 <i>Research</i> *	5
NSG 332 <i>Concepts</i> *	2	NSG 330 <i>Promotion</i>	2
Total	5	Total	7

Summer I

NSG 333 <i>Rural Fa.</i> *	2
Total	2

Second Year (part time)

<i>Fall semester</i>	<i>Hrs.</i>	<i>Spring semester</i>	<i>Hrs.</i>
NSG 328 <i>Adv. Patho.</i>	4	NSG 336 <i>Diagnosis</i> *	3
Total	4	NSG 326 <i>Policy</i> *	3
		Total	6

Summer I

NSG 391 <i>Adv. Pharm.</i>	3
NSG 397	1
Total	4

Third Year (part time)

<i>Fall semester</i>	<i>Hrs.</i>	<i>Spring semester</i>	<i>Hrs.</i>
NSG 340, 350, or 380	4	NSG 342, 352, 375, or 382	
NSG 341, 351, or 381		<i>Practicum II</i>	5
<i>Practicum I</i>	5	NSG 397	2
Total	9	Total	7

Schedule of Course Offerings

<i>Fall</i>	<i>Spring</i>	<i>Summer I and II</i>
Theory*	Research*	Rural Family*
Concepts*	Diagnosis*	Advanced Pharmacology
Advanced Pathophy	Health Promotion	Paper/Thesis
Special	Policy*	
Practicum I	Practicum II	
Paper/Thesis	Paper/Thesis	

*MDTV Offering

School of Pharmacy

www.hsc.wvu.edu/sop/

George R. Spratto, Ph.D., Dean.

Carl J. Malanga, Ph.D., Associate Dean for Academic Affairs.

Calvin C. Brister, Ph.D., Assistant Dean for Student Affairs.

Patrick S. Callery, Ph.D., Assistant Dean for Research and Graduate Programs.

Degrees Offered:

Doctor of Pharmacy (Entry-level or non-traditional)

M.S., Ph.D. in Pharmaceutical Sciences

Introduction

Pharmacy was first offered at West Virginia University as a department in the School of Medicine beginning in 1914. It became the College of Pharmacy in 1936 and the School of Pharmacy in 1958. In 1960, the School of Pharmacy changed from a four-year to a five-year program and in 1998 to a six-year program. The entry-level Doctor of Pharmacy (Pharm. D.) program comprises four years of professional study preceded by a minimum of two years of pre-pharmacy study in an accredited college of arts and sciences. The non-traditional Pharm.D. program is comprised of four to six years of part-time course work. The non-traditional Pharm.D. degree program is offered to person with a B.S. in pharmacy from an accredited school upon completion of a minimum of 58 semester credits of specific course work.

A primary objective of the School of Pharmacy is to educate practitioners for current and future roles in the profession of pharmacy. To meet this objective, the curriculum provides the student with the scientific and technical knowledge and communication skills required to practice the profession and imbues in the student a concept of the pharmacist's professional responsibilities as a provider of pharmaceutical care and as a guardian of the public health.

Most pharmacy graduates enter practice in community or institutional pharmacies; however, positions are also available in various government agencies, the pharmaceutical industry, long-term care, and home healthcare organizations. Pharmacists are eligible for commissions in the armed forces and for positions with the U.S. Public Health Service. Pharmacists also may prepare for careers in teaching and research through graduate study.

The WVU School of Pharmacy offers M.S. and Ph.D. programs in the pharmaceutical sciences. Students may specialize in pharmacy, pharmaceuticals, medicinal chemistry, pharmaceutical chemistry, biopharmaceutics/pharmacokinetics, pharmacology, and behavioral and administrative pharmacy.

Accreditation

The School of Pharmacy is accredited by the American Council on Pharmaceutical Education. The council is composed of members from the American Pharmaceutical Association, National Association of Boards of Pharmacy, American Association of Colleges of Pharmacy, and American Council on Education.

The School of Pharmacy holds membership in the American Association of Colleges of Pharmacy, whose objective is to promote the interests of pharmaceutical education.

Legal Requirements and Reciprocity

To qualify for examination for licensure by the West Virginia Board of Pharmacy, the applicant must be 18 years of age or older and of good moral character. Further, the applicant must be a graduate of an accredited school of pharmacy, and must meet the internship requirements set by the West Virginia Board of Pharmacy.

Interns must be registered with the West Virginia Board of Pharmacy and must be enrolled in or a graduate of, an accredited school of pharmacy to gain experience acceptable for the internship requirement. Details may be obtained from the office of the dean.

School of Pharmacy graduates are eligible for examination to practice pharmacy in any state. Graduates who successfully pass the West Virginia Board of Pharmacy examination are privileged to reciprocate with forty-eight other states, and with the District of Columbia and Puerto Rico, provided they meet the licensure requirements of these states.

Entry-Level Pharm.D. Admission

All students seeking enrollment in the School of Pharmacy must comply with regulations appearing in this catalog and the *WVU Undergraduate Catalog*. Students preparing for the study of pharmacy may satisfy the course work requirements for entrance into the School of Pharmacy entry-level Pharm.D. program by successfully completing the following course selections, or their equivalents:

Pre-Pharmacy Requirements	WVU Courses Meeting Requirements	Sem. Hr. Credit
English composition	ENGL 1 and 2	6
Introduction to calculus	MATH 128 (MATH 15)	3 (4)
Principles of microeconomics	ECON 54	3
General biology	BIOL 15 and 17	8
General chemistry	CHEM 15 and 16	8
Organic chemistry	CHEM 133/135 and 134/136	8
Physics	PHYS 1 and 2	8
Introduction to statistics	STAT 101 or ECON 125	3
General microbiology	MBIO 26 (ENVM 141)	3 (4)
General communications	COMM 11 and 12	3
Electives*		18
Total		71-73

*Electives must be designed to satisfy the University Liberal Studies Program requirements. (See "Liberal Studies Program" for a listing of specific courses.) Cluster A—12 hrs.; Cluster B—six hrs.; in addition to Economics 54 and Communications 11 and 12. One of these 3 credit hour electives from either Cluster A or B must focus on a foreign or minority culture or gender studies.

Because limited openings are available in the school's professional degree program, preference in admissions is given to qualified West Virginians, although nonresident applicants are considered. Careful consideration is given to those personal qualifications which bear upon the fitness of applicants for the study and practice of the profession of pharmacy.

Admissions are competitive and are based on the academic grade-point average for specific School of Pharmacy requirements, the cumulative academic grade-point average achieved in all prior college courses, results of the Pharmacy College Admissions Test (PCAT), a personal interview, and recommendations describing academic performance, as well as extracurricular activities, work experience, volunteerism, etc. A required course in which a grade of D was received must be repeated with a grade of C or better before acceptance can be considered by the School of Pharmacy committee on admissions.

Applicants should write to the Office of Admissions and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815 for official application forms, which will be made available after January 1 of each year. The forms should be returned to that office by March 1 preceding the fall semester in which the student seeks enrollment. Formal applications received after the March 1 deadline will be considered only when vacancies exist. A \$30.00 application fee is required and must accompany the application.

Each applicant who is recommended for acceptance is expected to deposit \$100.00 before his/her name is entered upon the official list of those accepted by the School of Pharmacy. If the applicant enrolls, this sum is applied to the first-semester tuition. If the applicant fails to enroll, this deposit is forfeited.

With enrollment in the School of Pharmacy, all students must comply with the immunizations and diagnostic procedures required by the University of West Virginia System Board of Trustees, West Virginia University, the Robert C. Byrd West Virginia University Health Sciences Center, and/or the School of Pharmacy.

Complete information may be obtained from the Dean of the School of Pharmacy, WVU Health Sciences Center, P.O. Box 9500, Morgantown, WV 26506-9500 or from the Office of Admissions and Records, WVU Health Sciences Center, P.O. Box 9815, Morgantown, WV 26506-9815.

Pharmacy College Admission Test

Completion of the Pharmacy College Admission Test is a requirement for admission. It is recommended that the student take this test in the fall before making application for admission. Information concerning time and place of the test can be obtained from a prepharmacy advisor, the School of Pharmacy, or by writing: Pharmacy College Admission Test, The Psychological Corporation, 555 Academic Court, San Antonio, TX 78204.

Personal Interview

The committee on admissions may require a personal interview with an applicant as it deems appropriate. Interviews are held during the spring semester at the WVU Robert C. Byrd Health Sciences Center or the Charleston Area Medical Center and are arranged, when possible, to suit the convenience of the applicant. The general policy is that only applicants with a cumulative and science grade-point average of 2.5 or above are invited for an

interview. Applicants with a cumulative or science grade-point average below 2.5 are generally not considered qualified for admission. Applicants should note that past applicant pools have rarely admitted individuals with GPAs below 3.0.

Recommendations on Academic Performance

Three academic recommendations are required, although more may be submitted. At least two of these recommendations must be provided by course instructors in any two of the three prepharmacy science areas: biology, chemistry, and physics. The third recommendation may be provided by a course instructor of the student's choice.

Admission to Advanced Standing

If space is available, students from other accredited schools of pharmacy may be admitted, provided they meet the course requirements of the WVU School of Pharmacy, have at least a 2.5 grade-point average, and are eligible for continuation toward a degree in pharmacy at the school initially attended. Grades of D in professional courses can not be transferred.

Conditions Following Acceptance of Admission

An applicant accepted into the first year or with advanced standing is expected to have met all entrance requirements and satisfactorily complete all prepharmacy/pharmacy school work in progress. A satisfactory performance in the completion of such work is defined as one that is consistent with the student's previous academic record. Failure to do so may result in revocation of the acceptance by the admissions committee.

The student must be aware that furnishing or causing to furnish false or incorrect information for the purpose of application to the School of Pharmacy constitutes grounds for disciplinary action, including, but not limited to expulsion or revocation of acceptance.

Students in the School of Pharmacy agree to abide by the provisions of an integrity code, which requires ethical and professional standards of conduct in all situations. Prior to the start of each academic year, each student is required to return a signed statement to the Office of Student Affairs, indicating the student has read and understands the Student Professional and Academic Integrity Code of the West Virginia University School of Pharmacy. The code and copies of the statement are available in the Office of Student Affairs in the School of Pharmacy.

Student Course Load

Students in the Doctor of Pharmacy program are expected to register for all required classes in a semester unless directed not to do so by the committee on academic and professional standards. Full-time students in the School of Pharmacy may not register for less than 12 credit hours nor more than 20 credit hours during any semester without written approval of the committee on academic and professional standards. For an exception, a letter of petition, as approved and signed by the student's academic advisor, must be submitted to the committee on academic and professional standards through the School of Pharmacy's Office of Student Affairs.

Promotion and Graduation Requirements

Evaluation of Student Progress

Promotion of a student in the Doctor of Pharmacy program is evaluated in two major areas: (1) successful completion of all required work, and (2) appropriate adherence to the professional standards of the School of Pharmacy.

The information which follows is only a brief outline of the School of Pharmacy policies and procedures. Detailed requirements and policies for evaluation of student progress and graduation may be found in the Policy on Academic and Professional Standards Governing the Doctor of Pharmacy Degree Program at West Virginia University School of Pharmacy. Copies are available through the Office of Student Affairs. The committee on academic and professional standards administers all promotion and dismissal rules.

Academic Coursework Review

The committee on academic and professional standards of the School of Pharmacy reviews the performance of each student in every course at the end of each academic period and makes recommendations to the dean.

If a student has been found to have a marginal performance in any course as indicated by a grade less than a C or a semester grade-point average less than 2.5, probation may be recommended. Students on probation are not eligible to hold office in student organizations or to participate in activities that make demands on time necessary to maintain satisfactory academic performance. Students on probation are expected to be present for all of their classes and laboratories. If a student fails to complete the remedial actions or meet the specified performance requirements during the probationary period, academic dismissal may be recommended.

If a student has been found to have an unsatisfactory performance as indicated by a grade of F in any course, two or more grades less than a C in a semester, three or more grades less than C in a year, or an accumulation of narrative evaluations that indicate an academic deficiency or inadequate integration of curricular content, suspension or dismissal from the school may be recommended. In selected circumstances, the committee may recommend remedial work or repetition of all or a portion of the curriculum. Exceptions may be made only on recommendation of the committee.

After academic dismissal, a student may apply for readmission to the School of Pharmacy, and readmission of a student is the prerogative of the dean following a recommendation by the committee on academic and professional standards.

Grading Policy

Courses in the Doctor of Pharmacy degree program are graded either as A (excellent), B (good), C (fair), D (marginal), F (failing), or I (incomplete) or on a satisfactory unsatisfactory basis. Grades may be accompanied by a narrative report on the student's progress, noting any factors requiring remedial work or counseling. It is customary that all experiential courses are accompanied by a narrative evaluation. Narrative evaluations are kept in the student's file in the Office of Student Affairs.

The grade of incomplete (I) is given when the instructor believes that the work is unavoidably incomplete. If the grade of I is not removed by the satisfactory completion of the work before the end of the next semester in which the student is in residence, it becomes a failure (F) unless special permission

to postpone the work is obtained from the committee on academic and professional standards. It is the responsibility of the student to consult the instructor about the means and schedule for completing incomplete courses.

Professional Standards Review

In view of public and professional responsibilities, the faculty of each of the professional schools of WVU has the authority to recommend to the president of the University the removal of any student from its rolls whenever, by formal decision reduced to writing, the faculty finds that the student is unfit to meet the qualifications and responsibilities of the profession. Further information is provided in The Policy on Academic and Professional Standards Governing the Doctor of Pharmacy Degree at West Virginia University School of Pharmacy, which is available at the School of Pharmacy Office of Student Affairs.

Requirements for Degree

The awarding of a Doctor of Pharmacy degree to a student is approved by the dean of the School of Pharmacy after receipt of recommendations from the faculty. Candidates must meet the following criteria: (1) meet the academic and professional standards, criteria, and requirements outlined in The Policy on Academic and Professional Standards Governing the Doctor of Pharmacy degree at West Virginia University School of Pharmacy, which is available at the School of Pharmacy Office of Student Affairs; (2) satisfactorily complete all the required coursework in a timely fashion, which normally will not exceed five years from the date of initial enrollment into the professional program; (3) pay all fees; (4) complete the last year's work in residence in this school; (5) be present at the commencement exercises unless excused by the Dean of the School of Pharmacy in writing, and (6) complete satisfactorily the required number of experiential rotations and demonstrate the attainment of minimum competencies.

Special Requirements

Fifteen-hundred clock hours of internship experience are required by the Board of Pharmacy for licensure in West Virginia. Students are required to obtain an Intern Certificate from the West Virginia Board of Pharmacy. Any hours worked before becoming a registered intern will not apply toward meeting the board requirements. Students must have a valid Intern Certificate throughout their entire experiential year of the Pharm.D. program. The certificate must also be maintained until completion of the entire internship. The Board of Pharmacy holds final authority over internship rules and regulations. Eight-hundred hours of the total of fifteen-hundred required by the Board of Pharmacy are obtained upon completion of the fourth professional year of the Pharm.D. program.

Students in the Pharm.D. program will perform eleven four-week blocks of clerkships during the final year of the program. Three of the eleven blocks must be performed in WVRHEP sites. Site placement and sequencing will occur in the semester prior to the clerkship year. Students may incur additional housing and/or travel costs during the clerkship year. Opportunity will be provided for students to prioritize their site selection; however, ultimate authority for site selection will be maintained by the School of Pharmacy. All required didactic course work must be completed prior to beginning the clerkships.

Course Changes

A student who seeks credit for a course previously taken to replace a course prescribed in the student's curriculum must submit a written petition to the committee on academic standards.

Entry-Level Pharm.D. Professional Curriculum

First Year

<i>Fall semester</i>	<i>Hrs.</i>	<i>Spring semester</i>	<i>Hrs.</i>
ANAT 101	3	BIOC 231	3
PSIO 241	4	PHAR 352	3
PHAR 351	3	PHAR 354	3
PHAR 353	2	PHAR 356	3
PHAR 303	2	PHAR 358	1
Elective *	2-3	PHAR 310	1
Total	16-17	PHAR 304	2
		Total	16

*Students must complete a minimum of ten credit hours of electives in the first three years of the professional program. Of these ten, a minimum of six must be professionally related and selected from an approved list.

Second Year

<i>Fall semester</i>	<i>Hrs.</i>	<i>Spring semester</i>	<i>Hrs.</i>
PHAR 361	4	PHAR 362	4
PHAR 363	3	PHAR 364	2
PCOL 343	3	PCOL 344	3
PHAR 365	2	PHAR 366	2
PHAR 305	2	PHAR 368	2
Elective	2-3	PHAR 306	1
Total	16-17	Elective	2-3
		Total	16-17

Third Year

<i>Fall semester</i>	<i>Hrs.</i>	<i>Spring semester</i>	<i>Hrs.</i>
PHAR 371	5	PHAR 372	3
PHAR 373	3	PHAR 374	3
PHAR 379	3	PHAR 378	2
PHAR 381	2	PHAR 380	2
PHAR 307	1	PHAR 382	3
Elective	2-3	PHAR 308	1
Total	16-17	Elective	2-3
		Total	16-17

Fourth Year

Experiential Components (Students rotate through)

Community and institutional

pharmacy components *	3 x 4 weeks =	12 weeks	12
Medicine	2 x 4 weeks =	8 weeks	8
Ambulatory care	2 x 4 weeks =	8 weeks	8
Informational sciences	1 x 4 weeks =	4 weeks	4
Electives	3 x 4 weeks =	12 weeks	12
Total experiential **	44 weeks		44

*Students will choose which component will be four weeks and which component eight weeks for a total of 12 weeks community and institutional.

**Fourth-year students will be required to attend both summer I and II semesters.

The entry-level Doctor of Pharmacy program has been approved at all levels of administration. Some courses were not submitted to the University Senate for approval at the time this catalog was printed.

Prior to graduation each student enrolled in the School of Pharmacy professional program must complete a minimum of ten credit hours of electives as part of the pharmacy curriculum. Electives must be completed during the first three years of the four-year professional program. For the Pharm.D. program, at least six of the ten required elective hours must be professionally related and chosen from a list of approved courses. Beyond the required ten credit hours, the student may take any other electives. No course taken prior to admission into the School of Pharmacy may be used nor repeated to meet the elective requirements of the professional curriculum, and no reduction in elective requirements will be allowed for courses completed or degrees earned prior to enrollment in the program.

The University pass/fail policy will be followed. Only *pharmaceutical investigations* (first offering up to three hours), or additional free electives (in excess of the ten hours of required electives) may be taken on a pass/fail (or satisfactory unsatisfactory basis. No more than three credit hours of *pharmaceutical investigations* will be permitted to count toward fulfillment of the pharmacy elective requirements.

Non-Traditional Doctor of Pharmacy Program

The non-traditional Doctor of Pharmacy (Pharm.D.) degree is awarded to persons with a B.S. in pharmacy from an accredited school upon completion of a minimum of 58 semester credits of specific coursework.

The Pharm.D. curriculum offered in the traditional classroom setting has been adapted for the Non-Traditional Doctor of Pharmacy Program into a structured learning format which includes: learning objectives, readings and written assignments, videotaped lectures, case studies, audiovisual aids, scheduled contact sessions with the coordinator and instructors as needed and exams administered by proctors located in the same geographic area as the student. With the exception of four credit hours, the didactic work will be provided through the University of Kentucky. All experiential work will be handled through West Virginia University. All work can be completed off-campus except for a required annual meeting.

Students enrolled in the program must have completed a basic statistics course within the last five years.

Required courses in the Non-Traditional Doctor of Pharmacy Program include:

<i>Drug Literature Evaluation</i>	3 credit hours
<i>Disease Processes I</i>	5 credit hours
<i>Disease Processes II</i>	4 credit hours
<i>Clinical Pharmacokinetics</i>	4 credit hours
<i>Applied Therapeutics I</i>	5 credit hours
<i>Applied Therapeutics II</i>	5 credit hours
<i>Patient Assessment</i>	2 credit hours
<i>Pharmacy Practice Development</i>	2 credit hours

The didactic portion of the program takes approximately three calendar years to complete. The coursework is not self-paced. There is a schedule of exams with each course and dates as to when homework will be due. Proctors for exams will be nominated by each individual student.

Clerkship experiences may take from one to two additional years to complete. The experiential component will consist of seven rotation blocks of 160 contact hours each. The block requirements include:

Ambulatory care	2 blocks
Acute care	2 blocks
Electives	3 blocks

A single rotation should normally be completed in four weeks but can be completed in eight weeks on a half-time basis. Students may apply for clerkship credit for up to three rotation blocks based on their ability to demonstrate competency in each rotation for which they are requesting a waiver. Clerkship experiences are mutually agreed upon between the student and the program coordinator at approved sites. Whenever possible, clerkship sites are established at commutable distances from the student's home. Although, students may be employed at approved clerkship sites, two rotations must be completed at a different location.

Non-traditional Pharm.D. students have a maximum of six years to complete the program. Courses will be offered in the non-traditional format only once a year. Students who withdraw from courses with permission may have to sit out for a full academic year before restarting the program.

Note: Tuition for the non-traditional Pharm.D. is currently \$421.00 per credit hour for West Virginia residents for didactic courses. All fees are subject to change.

Graduate Programs Pharmaceutical Sciences

The School of Pharmacy offers graduate programs in the pharmaceutical sciences aimed at educating competent researchers and teachers. Programs for the degree of master of science (M.S.) and doctor of philosophy (Ph.D.) provide flexible, research-oriented curricula designed to develop the interests, capabilities, and potential of the individual student.

Admission Requirements

Applicants for admission into the graduate program must satisfy the WVU general requirements for admission as graduate students. The applicant must possess a baccalaureate degree with a background in a suitable area of study, an overall grade-point average of at least 2.75, and the aptitude and interest for graduate work in the pharmaceutical sciences in order to be admitted with regular student status. Applicants not meeting criteria for admission with regular student status will be considered for admission under alternate admission classifications as explained in Part 2 of the *WVU Graduate Catalog*. In addition, Graduate Record Examination (GRE) scores in the verbal, quantitative, and analytical portions are required from all students except for applicants in the area of behavioral and administrative pharmacy, where test scores on the Graduate Management Admissions Test (GMAT) are acceptable. TOEFL, or similar scores, are required of international students.

Academic Standards

No credits are acceptable toward a graduate degree with a grade lower than a C. A graduate student must have a cumulative grade-point average of at least 3.0 for all graduate courses to qualify for the degrees.

Doctor of Philosophy (Ph.D.)

The School of Pharmacy offers programs of study leading to the doctor of philosophy (Ph.D.) degree in the pharmaceutical sciences. Specialty areas of study include medicinal chemistry, pharmaceuticals, biopharmaceuticals/pharmacokinetics, and behavioral and administrative pharmacy.

Requirements for Ph.D. Degree

The student's first semester is usually occupied with course work while he or she is under the guidance of an interim faculty advisor or committee. During this time, each student will confer with faculty members in the department concerning the research project, and a major professor should be chosen by the end of the first semester of graduate study. The student's research committee should be chosen by the end of the first year of study (18-20 hours of graduate course work). The interest to pursue the M.S. en route to the Ph.D. degree should also be stated at this time. It is not necessary for all students to complete all requirements for the M.S. degree in order to qualify for admission into the Ph.D. program, although the student, with committee advice, may elect to complete the requirements for this degree in progress toward the Ph.D. Students bypassing the M.S. must meet all requirements for the M.S., except for preparing and defending a thesis.

Each student must submit a formal plan of study and research plan to the Health Sciences Center graduate council.

Progress will continue with guidance from the research committee, and by the end of the second year the student should have completed the language/research tool requirements.

To be admitted to candidacy for the Ph.D. degree, the student must satisfy the above requirements and pass oral and written qualifying examinations.

After admission to candidacy, a substantial part of the program is devoted to an original research project which culminates in a dissertation. To be recommended for the Ph.D., the dissertation must be satisfactorily completed and defended at an oral examination.

Master of Science (M.S.)

The same program requirements for the first year of graduate study are required of the M.S. degree student as those described for the Ph.D. student. The School of Pharmacy offers programs of graduate study leading to the degree of master of science (M.S.) in the pharmaceutical sciences. Students may specialize in pharmacy administration, pharmacology and toxicology, pharmaceutical chemistry, industrial pharmacy, medicinal chemistry, pharmaceuticals, biopharmaceuticals, and pharmacokinetics.

Requirements for M.S. Degree

To be eligible for the M.S. degree, the student must complete a minimum of 30 hours of graduate credit, of which no more than six hours may be for research and thesis. Upon completion of the course work and research requirements and after submission of the thesis, an oral examination will be administered by the appointed examination committee.

For more specific information, please contact the Assistant Dean for Research and Graduate Programs, School of Pharmacy, P.O. Box 9500, Morgantown, WV 26506-9500.

Courses

Plan for Numbering Courses

For convenience, each course of study is designated by the name of the department in which it is given and by the number of that course. The plan for numbering courses is as follows:

Courses 1-99: Courses intended primarily for freshman and sophomores.

Courses 100-199: Courses intended primarily for juniors and seniors.

Courses 200-299: Courses for advanced undergraduate students and selected graduate students. No more than 40 percent of the credits counted for meeting requirements for a graduate degree can be at the 200 level.

Courses 300-399: Courses for graduate students, students in professional programs leading to a doctorate, and selected advanced undergraduates. Undergraduates in any class carrying a 300-level course number must have a 3.0 cumulative grade-point average and written approval on special forms from the instructor and the advisor. Seniors within 12 semester hours of graduation may, with prior approval of their advisors, enroll in 300-level graduate courses for graduate credit.

In summary, 200-level courses are intended primarily to serve undergraduate students; 300-level courses are intended primarily to serve introductory graduate degrees' course needs.

Courses 391 *Advanced Topics* and 397 *Master's Degree Research or Thesis*: Courses are approved for University-wide use by any academic unit. These courses may be graded S or U.

Courses 400-499: Courses for graduate students only. All doctoral degree dissertation hours are awarded at the 400-level, specifically under course number 497. Courses numbered 497 may be graded S or U.

Courses 492-495: Courses are approved by the assistant vice president for curriculum and instruction. Approved requests are forwarded to the Office of Admissions and Records for entry into the WVU *Schedule of Courses*. Graduate degree credit-hour requirements must include at least 60 percent at the 300 and 400 level.

Abbreviations used in course listings:

I: a course given in the first (fall) semester.

II: a course given in the second (spring) semester.

I, II: a course given each semester.

I and II: a course given throughout the year.

Yr: a course continued through two semesters.

S: a course given in the summer.

Hr: credit hours per course.

lec: lecture period.

rec: recitation period.

lab: laboratory period.

Conc: concurrent registration required.

PR: prerequisite.

Coreq: corequisite.

consent: consent of instructor required.

CR: credit but no grade.

An asterisk (*) following credit hours listed as variable indicates that the course normally carries three credit hours. Exceptions are made only in emergencies and must be approved by the departmental chair and by the professor teaching the course.

Undergraduate Common Course Numbers and Descriptions

190. *Teaching Practicum*. I, II, S. 1-3 Hr. PR: Consent. Teaching practice as a tutor or assistant.

191. *Special Topics*. I, II, S. 1-3 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

194. *Professional Field Experience*. I, II, S. 1-18 Hr. PR: Consent. Prearranged experimental learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors; involves temporary placement with public or private enterprises for professional competence development. (May be repeated up to a maximum of 18 hours.)

195. *Seminar*. I, II, S. 1-3 Hr. PR: Consent. Presentation and discussion of topics of mutual concern to students and faculty.

196. *Senior Thesis*. I, II, S. 1-3 Hr. PR: Consent.

197. *Honors*. I, II, S. 1-3 Hr. PR: Student in the Honors Program and consent by the Honors director. Independent reading, study, or research.

Graduate Level Common Course Numbers and Descriptions (as approved by the faculty senate)

Course 391 *Advanced Topics*. Variable 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

Course 397 *Master's Degree Research or Thesis*. Variable 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

Any school, college, department, or division may elect to offer these courses for its students. With the approval of the assistant vice president for curriculum and instruction, these courses may be graded S or U.

Courses 491 and 497: Courses 491 *Advanced Study* and 497 *Research* are approved for University-wide use by any academic unit. Courses numbered 491 and 497 may be graded S or U.

Courses 492-495: Courses are approved by the assistant vice president for curriculum and instruction. Approved requests are forwarded to the Office of Admissions and Records for entry into the WVU *Schedule of Courses*.

490. *Teaching Practicum*. I and II. 1-3 Hr. PR: Consent. Supervised practice in college teaching of _____ (Subject matter determined by department/division/college/school offering the course.)

Note: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It also provides a mechanism for students not on assistantships to gain teaching experience. Courses numbered 490 are graded S/U.

491. *Advanced Study*. I, II, S. 1-6 Hr. PR: Consent. Investigation in advanced topics which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

Note: This course is intended to be helpful in pioneering new courses prior to requesting formal approval through the senate curriculum committee and the full faculty senate (no later than the semester following the second offering of a particular special topics course) and to allow distinguished visitors whose stay will be a month or longer to instruct in their own fields of specialty.

492. *Directed Study*. I, II, S. 1-6 Hr. Directed study, reading, and/or research.

493. *Special Topics*. I, II, S. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

494. *Special Seminars*. I, II, S. 1-6 Hr. Special seminars arranged for advanced graduate students.

495. *Independent Study*. I, II, S. 1-6 Hr. Faculty-supervised study of topics not available through regular course offerings.

496. *Graduate Seminar*. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program.

Note: This course is intended to provide a mechanism for graduate students to give their "maiden speech" in their chosen discipline. Grading will be S/U.

497. *Research*. 1-15 Hr.

498. *Thesis*. 2-4 Hr. PR: Consent.

Note: This is an optional course for programs that believe that this level of control and supervision is needed during the writing of students' reports, theses, or dissertation.

499. *Colloquium*. 1-6 Hr. PR: Consent. For graduate students not seeking course work credit but who wish to meet residence requirements, use the University's facilities, and participate in its academic and cultural programs.

Note: Graduate students who are not actively involved in course work or research are entitled, through enrollment in his/her department's 499 *Graduate Colloquium*, to consult with graduate faculty, participate in both formal and informal academic activities sponsored by his/her program, and retain all of the rights and privileges of duly enrolled students. Grading is S/U; colloquium credit may not be counted against credit requirements for master's programs.

General Comment

Graduate Council policy requires that any student in a master's program has a minimum of 24 hours of "regular course work:" . . . **a minimum of 24 hours of course work other than thesis credit is standard and a minimum of 30 total hours is also standard.**

Course Descriptions

School of Dentistry

Professional, Graduate, and Undergraduate Courses

Each course is designated by the name of the department teaching it, its number and title, the semester in which it is offered, and hours of credit. Generally, those courses given in the first year are numbered 300—324; second year, 325—349; third year, 350—374; and fourth year, 375—399. Elective opportunities are offered to students during the fourth year of study. (See courses 394 and 397.) Other University courses may be taken with the approval of the student's advisor and the associate dean for academic affairs. Courses offered by the School of Dentistry have either a prefix DENT for dentistry, ENDO for endodontics, ORTHO for orthodontics, or DTHY for dental hygiene. Courses included in the curriculum but offered by other colleges, schools, or departments may be located elsewhere in this catalog or in the *WVU Graduate Catalog*.

Dental Hygiene (DTHY)

1. *Orientation to Dental Hygiene*. I. 2 Hr. PR: Enrollment in dental hygiene. Historical development of dental hygiene with emphasis on the philosophy, responsibilities, and current role of the dental hygienist as a member of the dental health team.

66. *Technical Expression and Dental Literature*. I. 1 Hr. PR: Enrollment in dental hygiene. Preparation and uses of professional communication.

85. *Oral Anatomy*. II. 3 Hr. PR: Enrollment in dental hygiene. Human teeth and the anatomy of the head and neck with emphasis on structures in or related to the oral cavity.

105. *The Theory and Practice of Prevention*. I. 2 Hr. PR: Enrollment in dental hygiene. Philosophy and techniques of preventive dentistry.

120. *Dental Nursing Technics*. II. 1 Hr. PR: Enrollment in dental hygiene. Emergency first aid and principles of nursing applicable to the dental office.

125. *Dental Hygiene Technics*. II. 4 Hr. PR: Enrollment in dental hygiene. Fundamental principles and technics of dental hygiene are presented through lectures, laboratory, and clinical participation.

150. *Dental Health Education*. II. 3 Hr. PR: Enrollment in methods, materials, and resources used in teaching dental health to various population groups.

152. *Dental Radiology*. I. 2 Hr. PR: Enrollment in dental hygiene. Basic principles and procedures in oral radiology technics and interpretation.

153. *Dental Radiology*. II. 1 Hr. PR: DTHY 152. The application of radiology principles and techniques. Clinical integration and case presentations will be emphasized.

160. *Dental Materials*. I. 3 Hr. PR: Enrollment in dental hygiene. Lecture and laboratory covering the science and manipulation of dental materials. (2 hr. lec., 4 hr. lab.)

162. *Expanded Functions*. II. 2 Hr. PR: DTHY 160. Lecture and laboratory covering specialty topics in dentistry for expanded functions, four-handed dental assisting, and the placing and carving of amalgam and resin restorations in dentiform teeth. (1 hr. lec., 4 hr. lab.)

162. *Dental Hygiene Clinical Methods*. I. 2 Hr. PR: DTHY 125. Principles of oral prophylaxis, instruction in the care of special patients, use of diagnostic aids, and nutritional counseling. (2 hr. lec.)

163. *Clinical Dental Hygiene 1*. I. 2 Hr. PR: DTHY 125. Clinical application of dental hygiene principles and techniques. (2 hr. Lab.)

164. *Clinical Dental Hygiene 2*. II. 2 Hr. PR: DTHY 162, 163. Clinical application of dental hygiene principles and techniques. (8 hr. lab.)

168. *Periodontics*. I. 1 Hr. PR: Enrollment in dental hygiene. Tissues of the periodontium, histopathology of periodontal disease with emphasis on etiology, examinations, diagnosis, treatment, and prevention within the scope of dental hygiene.

169. *Periodontics*. II. 2 Hr. PR: DTHY 168. A sequential course to DTHY 168.

172. *Public Health*. I. 2 Hr. PR: Enrollment in dental hygiene. Theory and practice of preventive dentistry and community.

174. *Dental Hygiene Teaching Methods*. II. 2 Hr. PR: Enrollment in dental hygiene. Concepts and principles of administration, curriculum, and clinical teaching unique to dental auxiliary education. Emphasis on overall role of the dental hygiene educator.

180. *Interdisciplinary Approach to Rural Health*. 2 Hr. Fundamental principles of and background information on Appalachian history, poverty, and cultural diversity for the assessment of rural health needs. Assess the delivery of health care services and community development in rural settings.

190. *Teaching Practicum*. 1-3 Hr.

191. *Special Topics*. 1-3 Hr.

194. *Professional Field Experience*. 1-18 Hr.

195. *Seminar*. 1-3 Hr.

196. *Senior Thesis*. 1-3 Hr.

197. *Honors*. 1-3 Hr.

220 A-Y. *Special Topics in Dental Hygiene*. I, II. 1-22 Hr. PR: Senior enrollment in dental hygiene. Special topics relevant to dental hygiene. A variety of sections offer elective opportunities to dental hygiene majors.

202. *Dental Hygiene Practice*. I. 2 Hr. PR: Senior enrollment in dental hygiene. Scope of practice for the dental hygienist including ethical and legal considerations. Public and professional relations as well as practice management are discussed.

204. *Advanced Dental Hygiene Methods*. I. 1 HR. PR: Senior enrollment in dental hygiene. Principles of advanced clinical dental hygiene and practice in non-traditional settings. (1 hr. lec.)

205. *Advanced Clinical Dental Hygiene 1*. I. 4 Hr. PR: Senior enrollment in dental hygiene. Clinical experience in traditional and expanded duties; pre- and post-operative care of surgical patients, and radiology. (20 hr. clinic.)

206. *Advanced Clinical Dental Hygiene 2*. II. 3-4 Hr. PR: Senior enrollment in dental hygiene. Continuation of clinical practice experience in dental hygiene procedures. (12-16 hr. clinic.)

207. *Advanced Dental Hygiene Methods*. II. 1 Hr. PR: Senior enrollment in dental hygiene. Principles of advanced clinical dental hygiene and practice in non-traditional settings.

220. A-Z *Special Topics in Dental Hygiene*. I, II. 1-22 Hr. PR: Senior enrollment in dental hygiene. Special topics relevant to dental hygiene. A variety of sections offer elective opportunities to dental hygiene majors.

250. *Dental Health Education 2*. I. 2 Hr. PR: DTHY 150. Advanced dental health education with a research component. A problem-based learning experience.

251. *Dental Health Education 3*. II. 2 Hr. PR: DTHY 250. Advanced dental health education with field experiences in three settings. Case histories to be written on field experiences.

380. *Dental Hygiene Seminar and Practice 1*. I. 3 Hr. PR: Graduate standing and consent. Examination of the critical environmental issues affecting the future of health care; particular impact on oral health care trends will form major focus. Dental hygiene clinical practice is also included.

381. *Dental Hygiene Seminar and Practice 2*. II. 3 Hr. PR: DTHY 380. Expanded services for the dental hygienist with emphasis on restorative and periodontal functions.

391 A-Z. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

397. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

Dentistry (DENT)

300. *Anesthesiology*. II and S. 1 hr. Lectures on local anesthesia, including types, modes of action, indications, and contraindication for use. Premedication, toxic effects, and technics of administration are discussed.

301. *Arts and Sciences of Dentistry*. I. 1 Hr. An overview of the practice of dentistry including the basis of oral disease, ethical considerations, and practice options.

303. *Oral Diagnostic and Roentgenology*. II. 2 hr. Lectures and laboratory exercises introduce and stress fundamental principles of oral diagnosis including patient health history and clinical examination methods. Intraoral radiography. General approach to treatment planning for comprehensive health care.

304. *Operative Dentistry*. II. 4 hr. Preclinical course in principles of cavity preparation, manipulation of plastic restorative materials, and related instrumentation. Characteristics and treatment of caries emphasized.

310. *Dental Anatomy and Occlusion*. Yr. 6 hr. Anatomy of individual teeth, both permanent and primary, in regard to form and function and their static and dynamic occlusal relationships.

311. *Periodontics*. S. 2 hr. Introduction to periodontal diseases, their diagnosis and treatment. Laboratory instruction is included.

312. *Dental Materials*. I. 2 hr. Composition, physical, chemical, mechanical, and manipulative properties, and technical uses of dental restorative materials as related to dentistry.

313. *Removable Prosthodontics*. I. 8 Hr. Lectures and laboratory practice in biomechanical requirements of the edentulous patient including maxillomandibular relationships and occlusion.

315. *Dental Practice/Rural Health*. I. 1 Hr. Study of professional communication including dental literature and means of access.

317. *Removable Prosthodontics*. II. 1 hr. PR: Consent. A lecture course providing an introduction to removable partial denture prosthetics.

319. *Pedodontics*. II. 1 hr. PR: Consent. Normal growth and development presented from physical, intellectual, psychological, and oral perspectives. Behavior of children in dental environment reviewed and strategies for management examined.

320. *Community Dentistry*. I. 1 hr. Fundamentals of statistical analysis and the scientific method necessary to the understanding of dental research.

321. *Endodontics*. S. 2 hr. Preclinical lectures and laboratory exercises on basic technical and biological requisites in the treatment of diseases of the dental pulp and the periapical tissues.

322. *Operative Dentistry*. S. 2 hr. Preclinical course to include a variety of cavity forms and their restoration with compacted golds. Certain fundamentals of pedodontics introduced.

323. *Clinic Orientation*. S. 1 hr. Series of specially arranged lectures, demonstrations, and clinical exercises to orient student to clinical procedures in the clinical disciplines.

325. *Practice Management*. II. 1 hr. A lecture course designed to prepare dental students in the concepts of four-handed dentistry.

326. *Removable Prosthodontics 1*. 1 Hr. This is a seminar course which identifies the knowledge and develops the psychomotor skills necessary for the student to perform a prosthodontic review for the removable partial denture.

327. *Oral Radiology*. I. 1 hr. The physical and biological phenomena associated with x-radiation. Intraoral and extraoral techniques presented and instruction in interpretation of roentgenograms, with special emphasis relative to oral diagnosis.

329. *Operative Dentistry*. I. 2 Hr. Lectures relate to standard clinical procedures and to laboratory instruction in direct and indirect cast gold restorations.

330. *Community Dentistry*. II. 1 Hr. Lectures provide the student with a basic knowledge of the principles of dental public health practice. Emphasis on dental epidemiology and preventive dentistry at the community level.

331. *Occlusion*. S. 2 Hr. PR: Consent. Didactic and clinic/laboratory instruction in the basic techniques and procedures associated with the treatment of conditions related to faulty occlusion.

332. *Periodontics*. II. 1 Hr. Lectures in the advanced theory and practice of preventive dentistry with emphasis on nutrition.

334. *Removable Prosthodontics 2*. 2 Hr. Didactic and laboratory course which identifies the knowledge and develops the psychomotor skills for making a complete mandibular master cast and for the management of cusp form posterior complete denture occlusion.

335. *Pediatric Dentistry*. I and II. 2 Hr. PR: Consent. Didactic instruction foundational to the dental care to children presented in the following modules of instruction: oral diagnosis/treatment planning/case presentation, prevention, restorative dentistry, pulpal therapy, management of the developing occlusion, and trauma to the dentition and oral structures.

336. *Fixed Prosthodontics*. I, II. 7 Hr. Lecture and laboratory exercises on principles and techniques of crowns and bridge prosthodontics and the techniques of preparing and restoring teeth with crown restorations. (Course meets both fall and spring terms.)

337. *Oral Diagnosis*. II. 1 Hr. Didactic instruction with further application of diagnosis procedures presented in DENT 303, extended to include special examination procedures and technics applicable to evaluating clinical problems.

339. *Oral Surgery*. II. 1 Hr. Didactic instruction in basic surgical principles as applied to the extraction of teeth and dento-alveolar surgery.

340. *Periodontics*. I. 1 Hr. Intermediate didactic instruction in periodontal therapy including basic surgery and post-operative care.

341. *Removable Prosthodontics*. S. 2 Hr. Clinical demonstrations correlating the didactic and laboratory practices with the actual treatment of a removable prosthodontic patient.

342. *Periodontics*. I. 1 Hr. PR: Consent. Clinical introduction to the practice of preventive dentistry.

344. *Diagnosis and Treatment Planning*. II. 1 Hr. Analysis of orthodontic diagnostic records, diagnostic skills for various malocclusions, and formulation of a treatment plan to orthodontic cases.

345. *Principles of Orthodontics*. II. 1 Hr. Facial growth and development, the development of occlusion, and etiology and classification of malocclusions.

346. *Orthodontic Technics*. S. 2 Hr. Technical instruction in taking diagnostic records and constructing basic orthodontic appliances.

347. *Management of Medical/Dental Emergencies*. II. 1 Hr. Assessment and treatment of the medical risk patient as related to the practice of dentistry. CPR instruction included.

348. *Operative Dentistry*. S. 1 Hr. Cavity medications, biological reactions to restorative materials and techniques, bur technology, and clinical variations of cavity form and treatment. Treatment planning procedure is reviewed and examined.

349. *Hospital Dentistry*. S. 1 Hr. Hospital protocol and hospital dentistry as related to various dental disciplines. Students will be assigned a one-week hospital rotation where they are involved in the care of hospitalized dental patients.

350. *Removable Prosthodontics*. Yr. 2 Hr. Lectures concerned with clinical practice of complete and partial removable prostheses.

351. *Occlusion*. II. 1 Hr. PR: Consent. Advanced study of the science of occlusion with particular attention to its impact on the clinical diagnosis and treatment of occlusal disorders.
352. *Community Dentistry*. Yr. 2 Hr. Seminars, proseminars, and field experience in selected topics of professional communication, health education, and the sociology and psychology of community health.
354. *Introduction to Dental Implantology*. 1 Hr. PR: Consent. Biological and scientific bases for implant dentistry; diagnosis, treatment planning, selection, placement, restoration, and maintenance of dental implants.
356. *Removable Prosthodontics*. II. 1 Hr. Lectures in the theory and practice of maxillofacial prosthodontics and implant dentistry.
357. *Fixed Prosthodontics*. Yr. 2 Hr. PR: Consent. Lectures concerned with clinical practice; diagnosis, treatment planning, treatment procedures, ceramics, esthetics, and occlusion.
358. *Operative Dentistry*. S. 2 Hr. More complex and advanced techniques for clinical practice with emphasis on new developments throughout the scope of operative dentistry.
359. *Oral Surgery*. I and II. 2 Hr. PR: Consent. Didactic instruction in patient evaluation, complicated exodontia, preprosthetic surgery, diagnosis, surgical and adjunctive treatment of disease, injuries, and defects of human jaws and associated structures.
361. *Pediatric Dentistry*. I. 1 Hr. PR: Consent. Continued didactic instruction in dentistry for the child patient with the following learning packages programmed: abnormal dental development, oral habits, and adolescent dentistry.
362. *Endodontics*. I. 1 Hr. Lectures on rationale, diagnosis, prevention, and nonsurgical and surgical treatment of diseases of the dental pulp and their sequelae.
363. *Periodontics*. Yr. 2 Hr. Advanced didactic instruction in periodontal therapy including special surgical procedures.
364. *Pain and Anxiety Control*. I. 1 Hr. PR: Consent. Instruction in the psychology, physiology, and clinical techniques of controlling pain and anxiety in the dental patient.
365. *Orthodontics*. II. 1 Hr. Introduction to clinical orthodontics; lectures on case analysis, treatment planning, and clinical procedures involved in interceptive, preventive, and adjunctive treatment of malocclusions.
366. *Developmentally/Medically Compromised Child*. I, II. 1 Hr. PR: Consent. Didactic instruction in dentistry for the developmentally disabled and/or medically compromised child.
369. *Practice Management II (Ethics and Law in Dentistry)*. 1 Hr. PR: Junior standing in dentistry. Core knowledge of the ethical and legal issues in dentistry; ethical and legal decision making process.
371. *Practice Management*. I. 2 Hr. PR: DENT 325. A lecture series on the fundamentals of practice management, including the organization and development of the practice, personnel and financial management, and the introduction to TEAM dentistry.
374. *Principles of Medicine*. I. 2 Hr. General diseases about which the dental student should have intelligent working knowledge. Students are assigned to specific hospitalized patients to review their findings with the class.
375. *Practice Management*. Yr. and S. 0-6 Hr. PR: Consent. Clinical practice using auxiliaries, including those trained in expanded functions.
376. *Removable Prosthodontics*. Yr. and S. 0-6 Hr. Continued application of the theory and practice of removable prosthodontics.
377. *Periodontics*. Yr. and S. 0-6 Hr. Clinical experience in the diagnosis and treatment of periodontal diseases.
378. *Practice Management-Law*. 1 Hr. S. Select legal concepts and their relation to the practice of dentistry.

379. *Practice Management-Ethics*. 1 Hr. S. Core knowledge of ethical issues in dentistry; the process of ethical decision making.
380. *Endodontics*. Yr. and S. 0-6 Hr. Clinical endodontic instruction in order to develop the skills and judgement necessary to treat diseases of the dental pulp and their sequelae.
381. *Patient Management*. I, II, S. 1 Hr. (repeated 4 times.) P/F. This course develops professional responsibility and time management through monitoring of patient care activity, which includes treatment, case presentations, diagnostic reviews, and clinic service assignments.
383. *Operative Dentistry*. Yr. and S. 0-6 Hr. Instruction in the clinic setting includes comprehensive diagnosis and treatment planning, computer-assisted records, plaque control, caries control, and single tooth restorations. Sufficient variety and depth of experience occurs to obtain competence for independent practice of operative dentistry.
384. *Oral Surgery*. Yr. and S. 0-6 Hr. Clinical instruction in outpatient and inpatient oral surgery necessary to provide comprehensive care for the dental patient.
385. *Orthodontics*. Yr. and S. 0-6 Hr. Clinical management of selected malocclusion problems.
386. *Pediatric Dentistry*. Yr. and S. 0-6 Hr. Instruction in the clinical setting with the goal of developing the psychomotor skills and judgment necessary to provide comprehensive care for the child patient.
387. *Clinical Oral Diagnosis*. Yr. and S. 0-6 Hr. Clinical application of principles presented in DENT 303 and 337, providing opportunities for observation and analysis of clinical problems.
389. *Fixed Prosthodontics*. Yr. and S. 0-6 Hr. PR: Consent. Clinical application of the theory and practice of crown and bridge dentistry.
391. *A-Z Advanced Topics*. (Fourth year.) I and II. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.
394. *Community Dentistry*. I, II. 1-15 Hr. Field experience in various aspects of community health.
395. *Hospital Dentistry Practicum*. I, II. 1-15 Hr. Hospital experience (remote site) in the various aspects of care of the hospitalized dental patient. Provides continuation of experiences gained in DENT 349.
396. *Clinical Oral Radiology*. Yr. and S. 0-6 Hr. Clinical application of principles presented in DENT 303 and 327 with additional instruction in techniques and interpretation of radiographs with special emphasis to role played in oral diagnosis.
397. *Master's Degree Research or Thesis*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.
399. *Clinic Completion Practicum*. I, II, S. 1-15 Hr. Supervised patient care in selected clinical areas specified for each individual student according to their clinical competency requirements.
400. *Advanced Oral Surgery*. I, II, S. 1-12 Hr. PR: Consent. Advanced study of therapeutics, hospital protocol, and surgical aspects of oral surgery involving lectures, seminars, demonstrations, and clinical applications.
490. *Teaching Practicum*. I, II. 1-3 Hr. PR: Consent. Supervised practice in college teaching of dentistry.
491. *Advanced Study*. 1-6 Hr.
492. *Directed Study*. 1-6 Hr.
493. *Special Topics*. 1-6 Hr.
494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.
496. *Graduate Seminar*. 1 Hr.
497. *Research*. I, II, S. 1-15 Hr.
498. *Thesis*. 2-4 Hr.
499. *Graduate Colloquium*. 1-6 Hr.

Endodontics (ENDO)

389. *Endodontic Theory*. I, II, S. 2 Hr. PR: Consent. Provides seminar discussions in the topics of: basic endodontic techniques, advanced endodontic techniques, endodontic literature review, case presentation, and advanced endodontic theory.
390. *Clinical Endodontics*. I, II, S. 1-5 Hr. (May be repeated for credit.) PR: Graduate of an accredited dental school and admission to the advanced education program in endodontics or consent. Clinical endodontic practice in the areas of: ordinary endodontic cases, complex endodontic cases, hemisection, root amputation, replantation, transplantation, endodontic implantation, vital pulp therapy, apexification, and bleaching.
397. *Master's Degree Research or Thesis*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.
490. *Teaching Practicum*. I, II. 1-3 Hr. PR: Consent. Supervised practice in college teaching of dentistry.

Orthodontics (ORTH)

397. *Master's Degree Research or Thesis*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.
416. *Biomechanics*. I, II, S. 2 Hr. PR: Consent. Design and function of the teeth and their surrounding structures, and response of these tissues to orthodontic procedures.
417. *Orthodontic Technique*. I, II, S. 2 Hr. PR: Consent. Laboratory course in techniques related to fabrication and manipulation of orthodontic appliances.
418. *Orthodontic Materials*. I, II, S. 1 Hr. PR: Consent. Physical properties of materials used in orthodontic appliances.
419. *Orthodontic Diagnosis*. I, II, S. 1-3 Hr. PR: Consent. Seminar-type class on technique of patient examination, acquiring diagnostic records, and analyzing and correlating this information to the treatment of clinical problems.
420. *Cephalometrics*. S. 1-3 Hr. PR: Consent. Use of radiographic cephalometry in studying growth of the human face, analysis of dentofacial malformations, and evaluation of orthodontic treatment.
421. *Orthodontic Mechanics*. I, II, S. 1-4 Hr. PR: DENT 416, 417. Seminar and laboratory course on basic orthodontic mechanical properties.
422. *Advanced Orthodontic Mechanics*. I, II, S. 1 hr. PR: ORTH 421. Continuation of DENT 421 involving more difficult type cases and introducing more sophisticated appliance therapy.
423. *Growth and Development*. II. 1-5 Hr. PR: Consent. Seminar-type course on normal and abnormal growth of the human head and its application to orthodontics.
425. *A-Z Orthodontic Seminar*. I, II, S. 1-8 Hr. PR: Consent. Discussions including all branches of dental science, with special emphasis on the orthodontic interest. Assigned topics and articles in the literature discussed.
426. *Orthodontic Clinic*. I, II, S. 1-12 Hr. PR: DENT 416, 417. Clinical treatment of selected patients.
490. *Teaching Practicum*. I, II. 1-3 Hr. PR: Consent. Supervised practice in college teaching of dentistry.

- 491. *Advanced Study*. 1-6 Hr.
- 492. *Directed Study*. 1-6 Hr.
- 493. *Special Topics*. 1-6 Hr.
- 494. *Special Seminars*. 1-6 Hr.
- 495. *Independent Study*. 1-6 Hr.
- 496. *Graduate Seminar*. 1 Hr.
- 497. *Research*. I, II, S. 1-15 Hr.
- 498. *Thesis*. 2-4 Hr.
- 499. *Graduate Colloquium*. 1-6 Hr.

School of Medicine

Professional, Graduate, and Undergraduate courses

Anatomy (ANAT)

- 101. *Principles of Human Anatomy*. 3 Hr. PR: BIOL 2 or equiv.; consent of instructor or chairperson. Lectures and demonstrations on the gross and microscopic anatomy of the human body including development. (Section 01 for pharmacy students; 02 for nursing and dental hygiene students.)
- 102. *Gross Anatomy*. II. 3 Hr. PR: ANAT 101 and/or consent of instructor or chairperson. Functional gross anatomy of the back, extremities, head, and neck. (For physical therapy students.)
- 109. *Oral Histology*. II. 2 Hr. PR: ANAT 101. Histological structure and embryological development of the teeth, tissues, and organs of the oral cavity (electronic delivery).
- 152. *Introduction Physical Anthropology*. 3 Hr.
- 190. *Teaching Practicum*. 1-3 Hr.
- 191. *Special Topics*. 1-3 Hr.
- 194. *Professional Field Experience*. 1-18 Hr.
- 195. *Seminar*. 1-3 Hr.
- 196. *Senior Thesis*. 1-3 Hr.
- 197. *Honors*. 1-3 Hr.
- 303. *Human Structure*. 17 Hr. PR: For medical and selected graduate students in the medical basic sciences with instructor consent. Integrated approach combining human gross anatomy, microanatomy, and embryology. Includes human cadaver dissection, microscopic anatomy of cells, tissues, and organs with application to human health and disease.
- 305. *Microanatomy*. (For medical students and a limited number of regular full-time graduate students in the medical basic sciences.) II. 2 Hr. PR: Medical student standing or consent of chairperson. Cells, tissues, and organs.
- 308. *Neuroanatomy*. (For students in physical therapy and a limited number of regular full-time graduate students in other health sciences.) II. 2 Hr. PR: Consent of instructor or chairperson. Gross and microscopic structure of the central nervous system.
- 309. *Microanatomy and Organology*. (For dental students and a limited number of regular full-time graduate students in the basic sciences.) I. 5 Hr. PR: Dental student standing or consent of chairperson. Cells, tissues, and organs.
- 312. *Special Topics in Anatomy*. I, II. 2-4 Hr. per sem. PR: Consent of chairperson or instructor. Different topics of current interest in anatomy that are not included in the regular graduate courses.

314. *Applied Anatomy*. I, II. 2-6 Hr. per sem. PR: Consent of instructor or chairperson. Detailed study of anatomy adapted to the needs of the individual student.

316. *Craniofacial Growth and Maturation*. I. 1 Hr. PR: Consent of instructor. The current concepts of craniofacial growth and maturation are presented and integrated for application to clinical problems.

318. *Oral Histology and Embryology*. (For dental students and a limited number of regular full-time graduate students in the medical basic sciences.) II. 2 Hr. PR: Dental student standing or consent of instructor or chairperson. Structure, function, and development of oral tissues.

319. *Advanced Head and Neck Anatomy*. 1 Hr. PR: Dental, medical, or graduate student in basic sciences, or consent. Head and neck craniofacial anatomy as it applies to specialties in dental or medical practice.

320. *Electron Microscopy*. II. 4 Hr. PR: Consent. (For graduate students, upperclass students in the sciences, medical students.) Interdisciplinary. Introduction to cell fine structure and function. Preparation of biological specimens for electron microscopy.

324. *Human Gross Anatomy*. (For dental students and a limited number of regular, full-time graduate students in medical basic sciences.) 7 Hr. PR: Dental student standing or consent of chairperson. Human anatomy including cadaver dissection for dental students. (4 hr. lec., 3 hr. lab.)

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. I, II, S. PR: Consent of instructor or chairperson. (May be repeated as needed with permission). 1-15 hr.

401. *Advanced Gross Anatomy*. I, II. 2-6 Hr. per sem. PR: ANAT 303 or 324 and consent of instructor or chairperson. Morphological and functional analysis of a selected region, with dissection.

402. *Advanced Developmental Anatomy*. II. 2-6 Hr. per sem. PR: ANAT 303 or 324 and consent of instructor or chairperson. Detailed developmental anatomy of the fetal period and infancy. With dissections and analysis of variations and malformations.

403. *Seminar*. I, II. 1-6 Hr. (1 hr. per sem.) (Course may be repeated.) PR: Consent of graduate committee. Special topics of historical interest.

405. *Experimental Embryology*. II. (Alternate years.) 3 Hr. PR: Embryology and cellular physiology and biochemistry and consent of instructor or chairperson. Development, differentiation, and regeneration.

406. *Advanced Neuroanatomy*. I. 2-4 Hr. per sem. (Course may be repeated.) PR: CCMD 375 and consent of instructor or chairperson. Detailed study of selected areas of the nervous system.

408. *Histochemistry*. II. (Odd-numbered years.) 3 Hr. PR: ANAT 305 or 309, biochemistry, and consent of instructor or chairperson. Histochemical theory and techniques.

451. *Advanced Microanatomy and Organology*. I, II, or S. 2-4 Hr. PR: ANAT 305 or 309, or BIOL 263 and consent of instructor or chairperson. An extension of the major topics included in ANAT 305 or 309. Special emphasis on recent contributions.

490. *Teaching Practicum*. I and II. 1-3 Hr. PR: Consent of chairperson. Supervised practice in college teaching of anatomy. Graded as S or U.

491. *Advanced Anatomy*. I, II. 1-6 Hr. PR: Consent of chairperson.

492. *Directed Study*. I, II, S. 1-6 hr. Directed study, readings, and research.

493. *Special Topics*. I, II, S. 1-6 hr. A study of contemporary topics selected from recent developments in the field.

494. *Special Seminars*. I, II, S. 1-6 Hr. Special seminars arranged for advanced graduate students. Arranged for advanced graduate students.

495. *Independent Study*. I, II, S. 1-6 hr. Faculty supervised study of topics not available through regular course offerings.

496. *Graduate Seminar*. 1 hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program. (Graded S/U.)

497. *Research*. I, II, S. 1-15 Hr. PR: Consent of graduate committee. (May be repeated as needed with consent of graduate studies committee.)

498. *Thesis*. 2-4 Hr.

499. *Graduate Colloquium*. 1-6 Hr.

Anesthesiology (ANES)

301. *Basic Sciences Applied to Anesthesia-Medicine*. I and II. 1-6 Hr. per year. PR: Consent. (Not offered during summer.) Examination and evaluation of date, decision making, discussion of special procedures. (Max. enrollment: 10.)

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

399. *Selective Experiences in Anesthesiology*. (Fourth year.) CR. (See conjoined courses.)

490. *Teaching Practicum*. 1-3 Hr.

491. *Advanced Study*. 1-6 Hr.

492. *Directed Study*. 1-6 Hr.

493. *Special Topics*. 1-6 Hr.

494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.

496. *Graduate Seminar*. 1 Hr.

497. *Research*. 1-15 Hr.

498. *Thesis*. 2-4 Hr.

499. *Graduate Colloquium*. 1-6 Hr.

Behavioral Medicine and Psychiatry (BMP)

311. *Introductory Psychiatry*. (First year.) II. 2 Hr. An examination of normal psychological development; consideration of the doctor-patient relationship and physician impairment. A preceptor model is used to introduce the patient to interviewing, emphasizing the mental status examination.

321. *Introductory Psychiatry*. (Second year.) I. 2 Hr. Continuation of BMP 311 with an in-depth look at basic science and social science parameters in psychiatry. Major clinical syndromes along with biological and environmental concomitants are presented. Advanced psychiatric interviewing is the focus of the preceptorship.

341. *Clinical Clerkship in Psychiatry*. 3 Hr. (third year). CR. Required of third-year medical students. Full-time assignments to the in-patient service in psychiatry, and participation and treatment of psychiatric disorders. Emergency room responsibility.

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

399. *Selected Experiences in Behavioral Medicine and Psychiatry*. (Fourth year.) (See conjoined courses.)

490. *Teaching Practicum*. 1-3 Hr.

491. *Advanced Study*. 1-6 Hr.

492. *Directed Study*. 1-6 Hr.

493. *Special Topics*. 1-6 Hr.

494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.

496. *Graduate Seminar*. 1 Hr.

497. *Research*. 1-15 Hr.

498. *Thesis*. 2-4 Hr.

499. *Graduate Colloquium*. 1-6 Hr.

930. *Professional Development*. 1-6 Hr. Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g., education, community health, geology). These tuition-waived, continuing education courses are graded on a Satisfactory or Unsatisfactory grading scale and do not apply as graduate credit toward a degree program.

Biochemistry (BIOC)

139. *Introduction to Biochemistry*. I. 3-5 Hr. PR: General chemistry. (For medical technology and pharmacy students; others by consent.) (Lecture and conference, 4 hr.; Laboratory/demonstration, 1 hr.)

191. *Special Topics*. 1-3 Hr.

192. *Selected Topics in Biochemical Research*. I, II, S. 1-6 Hr. (May be repeated for a maximum of 12 hr.) PR: Consent.

194. *Professional Field Experience*. 1-18 Hr.

195. *Seminar*. 1-3 Hr.

196. *Senior Thesis*. 1-3 Hr.

197. *Honors*. 1-3 Hr.

231. *General Biochemistry*. II. 4 Hr. PR: General chemistry, organic chemistry. (For pharmacy students; others by consent.) Consisting of the lecture portion of BIOC 305, this course is designed to be a general introduction to biochemical compounds, processes, and concepts for students in the pharmacy program. Four lectures per week.

239. *Clinical Chemical Techniques*. II. 4 Hr. PR: BIOC 139 and BIOC 231 or equiv. (Primarily for medical technology students; open to other qualified students by consent.)

305. *General Biochemistry*. II. 5 Hr. PR: General chemistry, organic chemistry. (For dental students, others by consent.) General introduction to biochemical compounds, processes, and concepts as part of the training for the practice of dentistry, including passage of the Dental Board Exam. Four lectures and one clinical correlation or small group discussion per week.

351. *Cell and Molecular Biochemistry 1*. 4 Hr. PR: BIOC 351. Part 1 of a two-semester, graduate-level course that instills comprehension of biochemistry, molecular biology, and cell biology necessary for bio-medical research. This course covers biochemical principles, proteins, and molecular biology

352. *Cell and Molecular Biochemistry 2*. 4 Hr. PR: BIOC 351. Part 2 of a two-semester, graduate-level course that instills comprehension of biochemistry, molecular biology, and cell biology necessary for bio-medical research. This course covers metabolism, metabolic regulation, cell structure, and cellular communication.

391. *Advanced Topics*. I, II, S. Variable 1-6 hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

397. *Research*. I, II, S. Variable. 1-15 hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

399 A-Z. *Special Topics*. A. I, II. 1-18 Hr. PR: Consent. Journal club, teaching, and laboratory rotations. B. I (4 hr.), II (3 hr.). PR: General chemistry, organic chemistry. For graduate students in basic sciences programs.

490. *Teaching Practicum*. I and II. 1-3 Hr. Consent of chairperson. Supervised practice in college teaching of biochemistry. Graded as S or U.

491. A-Z. *Advanced Study*. I, II. 1-6 Hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

492. *Directed Study*. 1-6 Hr.

493. *Special Topics*. 1-6 Hr.

494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.

496. *Graduate Seminar*. I, II. 1 Hr. PR: Consent. Presentation and discussion of special topics.

497. *Research*. I, II, S. 1-15 Hr. PR: Consent.

498. *Thesis*. 2-4 Hr.

499. *Graduate Colloquium*. 1-6 Hr.

Community Health Promotion (CHPR)

50. *History and Philosophy of Health Education*. 3 Hr. Provides the student with a historical perspective of health education's development, its present status, and its current philosophical foundations.

70. *Health of the Individual*. 3 Hr. Examines personal health-related problems in terms of information, services, and action, as they relate to attainment and maintenance of individual health.

71. *Health in the Community*. 3 Hr. Develops an understanding of the organization, structure, and function of official, voluntary, and professional community health components in terms of their protecting and maintaining the health of the community.

72. *First Aid and Emergency Care*. I, II, S. 3 Hr. Emergency aid for the sick and injured. Emergency services aimed at reducing the potential of permanent disability or threats to life, as well as pain, damage, or suffering of less serious nature.

101. *Elementary School Health Program*. 2 Hr. PR: Junior standing. The organization, educational aspects, and personnel relationships involved in elementary school health services, healthful school living, and health education.

102. *Secondary School Health Program*. 2 Hr. PR: Junior standing. The organization, educational aspects, and personnel relationships involved in secondary school health services, healthful school living, and health education.

104. *Organization and Administration of the School Health Program*. 3 Hr. PR: CHPR 71. The underlying philosophy for the organization, structure, administrative policies and procedures, and legal aspects of the school health program.

131. *Accident Prevention and Control Principles*. 3 hr. Basic course which structures principles, concepts, and methodology of the safety movement into introductory experiences dealing with accident prevention and control efforts recommended for various social institutions and agencies.

151. *Driver and Highway Safety Fundamentals*. 3 hr. PR: CHPR 131 or consent. Basic course for individuals who will provide instruction for beginning drivers emphasizing essential content, methods, and desirable practices for both classroom and laboratory applications.

190. *Teaching Practicum*. 1-3 Hr.

191 A-Z. *Special Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses.

194. *Professional Field Experience*. 1-18 Hr.

195. *Seminar*. 1-3 Hr.

196. *Senior Thesis*. 1-3 Hr.

197. *Honors*. 1-3 Hr.

220. *Drug and Alcohol Abuse Prevention*. 3 Hr. Experiences designed to prevent the development of abusive drug-taking relationships by focusing on psychological variables such as self-esteem, coping skills, and development of support networks.

231. *Safety in Motor Transportation Services*. 3 hr. PR: CHPR 131 or consent. (May not be taken for both undergraduate and graduate credit.) Safety elements of automotive transportation including design, operation, planning, control, and effects of legislation.

232. *Safety Education Principles and Content*. 3 hr. PR: CHPR 131 or consent. Study and analysis of content areas usually recommended for instructional programs within the field of safety, with emphasis on structured learning experiences.

255. *Traffic Safety Management*. 3 hr. PR: CHPR 151 or consent. (May not be taken for both undergraduate and graduate credit.) Elements of traffic safety management in public and private sectors are examined. Role of management organization, approaches, and programs is examined in light of the need for a safe, efficient highway transportation system.

256. *Driver and Safety Instructional Innovations*. 3 hr. PR: CHPR 151. (May not be taken for both undergraduate and graduate credit.) Innovations used in classroom and laboratory instruction applied to driver and safety education are studied (e.g., multimedia, multi-vehicle, in-vehicle, on-street, simulation). Specific aspects of instruction are based on current literature and research.

257. *Alcohol Safety Programs*. 3 hr. Topics include alcohol programming in schools, community, and the workplace. Approaches, programs, and materials are examined for use at the local level. Scientific reports are studied to determine the effectiveness of various approaches to the alcohol problem.

290. *Women and Health*. 3 Hr. Examination of theories, myths, and practices surrounding women's physical and mental health from both historical and present-day perspectives. Exploration of specific health issues and controversies and the rise of the women's health movement.

291 A-Z. *Special Topics*. 1-6 Hr. PR: Consent. Consideration of persistent issues and changing problems in the health promotion field. Emphasis will be placed upon health promotion interests of participating class members.

301. *Advanced School Health*. 3 Hr. PR: Graduate standing and consent. Analysis of problems in school health services, healthful school living, nature of health education, and scope of health instruction which confronts teachers and administrators.

307. *Community Health: Human Sexuality*. 3 Hr. PR: Consent. Analysis of sex-related issues including parenting, sex education, sexual sanctions, pornography, sexual dysfunction, and sexual variance. Designed for teachers, health professionals, and interested lay people.

308. *Community Health: Death Education*. 3 Hr. PR: Consent. Surveys death/dying from humanistic viewpoint. Examines philosophical, psychological, legal, and sociological aspects of death, grief, and mourning. Appropriate for teachers, health professionals, and others desiring understanding of death as a part of living.

309. *Community Health: Drug Education*. 3 Hr. PR: Consent. Designed to help students learn appropriate components of a drug education program, gain an understanding of drug taking in this society, and acquire insights into dependent behaviors.

310. *Introduction to Health Promotion*. I. 3 Hr. Identifies the elements of health promotion to assist students in identifying program goals and professional goals in health promotion.

311. *Community Health Promotion*. I. 3 Hr. Addresses various aspects of community health promotion including theories of community health program models; educational, social, and environmental interventions; and demographic and epidemiological analyses.

312. *Health Behavior Analysis*. 3 hr. The focus of this course is on the role of individual behavior in attaining health. Integration of the concepts of health education and behavioral science to facilitate changes in health behavior is addressed.

314. *Injury Prevention and Control*. I. 3 Hr. The injury control problem is examined as a public health concern. Strategies and programs for injury prevention are studies for implementation with target groups who are overrepresented within the injury problem.

320. *Roles and Functions of Health Educators*. 3 Hr. PR: Graduate standing and consent. An investigation of the roles and functions of the health educator in a variety of community settings including hospitals, clinics, voluntary agencies, etc.

332. *Safety Education Principles and Content*. 3 Hr. PR: Consent. Study and analysis of content areas usually recommended for instructional programs within the field of safety with emphasis on structured learning experiences.

333. *Foundations of Wellness*. I. 3 Hr. Wellness is examined as a component of health promotion. A wellness lifestyle is fundamental to promoting a holistic wellness concept. Quality of life issues and programs are explored for a variety of audiences.

334. *Health Promotion Research and Statistics*. II. 3 Hr. PR: CHPR 310, 311, 312 or consent. This course is designed to introduce students to the basic elements of conducting effective evaluation of health promotion programs.

335. *Management for Health Promotions Professions*. 3 Hr. PR: CHPR 310, 311, and 312, or consent. This course provides health promotion students with the essential skills to be effective managers in the community health environment.

338. *Design of Health Promotion Programs*. I, II. 3 Hr. PR: CHPR 310, 311, 312, or consent. This course is designed to convey theory and practice for developing health promotion programs. The course addresses design principles appropriate to a wide range of health promotion programs.

348. *Applied Health Promotion Programs*. I, II. 3 Hr. PR: CHPR 338 or concurrent. Students will apply information from CHPR 338 and other foundation courses in designing a health promotion program for a health agency or enterprise. Students will defend their program before their faculty committee.

350. *Practicum*. 1-12 Hr. PR: Majority of plan of study completed and consent. Students are assigned to a field placement based on prior health promotion work experience. Under the supervision of faculty, students assume major responsibility for a program with a community health promotion organization.

355. *Traffic Safety Management*. 3 Hr. PR: Consent. Elements of traffic safety management in public and private sectors are examined. Role of management, organization, approaches, and programs is examined in light of the need for a safe and efficient highway transportation system.

357. *Alcohol Safety Programs*. 3 Hr. Topics include alcohol programming in schools, community, and the workplace. Approaches, programs, and materials are examined for use at the local level. Scientific reports are studied to determine the effectiveness of various approaches to the alcohol problem.

373. *Professional Development*. 1-6 Hr. PR: Consent. Specially designed experiences for those interested in advancing professional skills in a particular specialty.

391 A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent.

397. *Master's Degree Thesis*. 1-15 Hr. PR: Consent.

482. *Supervised Applied Health Education Project*. 1 Hr. PR: Advanced graduate standing or consent. Doctoral students only. Plan and conduct a health education intervention in other than a classroom setting, i.e., a defined community.

483. *Supervised Health Education Research Report*. 1 Hr. PR: Advanced graduate standing and consent. Doctoral students only. A written report of empirical research of either a survey or an experiment.

490. *Teaching Practicum*. 1-3 Hr. PR: Consent. Supervised practice in college teaching of health-related learning experiences.

491 A-Z. *Advanced Study*. 1-6 Hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

492. *Directed Study*. 1-6 Hr.

493. *Special Topics*. 1-6 Hr.

494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.

496. *Graduate Seminar*. 1 Hr.

497. *Research*. 1-15 hr. PR: Consent.

498. *Thesis*. 2-4 Hr.

499. *Graduate Colloquium*. 1-6 Hr.

900. *Professional Development*. 1-6 Hr. Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g., education, community health, geology). The continuing education courses are graded on a Satisfactory or Unsatisfactory grading scale and do not apply as graduate credit toward a degree program.

930. *Professional Development*. 1-6 Hr. Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g., education, community health, geology). These tuition-waived, continuing education courses are graded on a satisfactory or unsatisfactory grading scale and do not apply as graduate credit toward a degree program.

Community Medicine (CMED)

301. *Introduction to Public Health*. I. 3 Hr. PR: Consent. An introduction to the field of public health with an emphasis on the relationship and role of public health to other disciplines in resolving public health problems. (Previously listed as CMED 340.)

311. *Methods of Biostatistics*. 3 Hr. Basic concepts of statistical models, distributions, probability, random variables, test of hypotheses, confidence intervals, regression, correlation, F and X² distributions, analysis of variance with emphasis on methods of biostatistics.

312. *Community Medicine*. (Second year.) II. 3 Hr. PR: Consent. Medical students only. The role of the physician in the prevention of disease and in the examination of health status in a community, with reference to demographic, economic, sociologic, environmental, and occupational factors. The organization of public health and medical care.

322. *Epidemiology and Biostatistics*. (First year.) II. 2 Hr. PR: Consent; medical students only. Epidemiological and statistical analysis of biologic phenomena as related to medicine. Emphasis on descriptive statistics, analytical epidemiology, statistical inference, measures of association, and evaluation of medical literature.

325. *Biology, Society, Human Health*. I. 3 Hr. PR: Consent. This course will cover fundamental biological knowledge about disease development in individuals and populations. The interactions of social and physical environments with physiological, psychological, and emotional characteristics in producing health and disease will be emphasized.

350. *Environmental Health*. 3 Hr. PR: Consent. A review of issues illustrating the responsibilities and roles of the public health workplace in identifying, managing, and preventing casualties from environmental causes in air, water, soil, food, pesticides, and related subjects.
360. *Public Health Epidemiology*. 3 Hr. PR: Consent or corequisite of CMED 311. Epidemiological study of populations in terms of morbidity, mortality, and other vital statistics in West Virginia. Scientific appraisal of public health problems and analysis of data will be emphasized. Evaluation of current literature is included.
389. *Practicum*. 3-9 Hr. PR: Consent. For M.P.H. students only. Under guidance of faculty and field counselors, M.P.H. students will assume major responsibilities for intervention and practice projects during a semester in a community-based organization.
391. *Advanced Topics*. 1-6 Hr. PR: Consent.
- 391 A-Z. *Advanced Topics*. 1-6 Hr. PR: Consent.
397. *Master's Degree Research and Thesis*. 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.
399. *Critical Review of Literature*. I and II. 1 Hr. PR: M.D. or consent. A review of current literature in occupational and environmental medicine, focused on analysis of validity and procedures followed; scrutiny of research reports, their design, methodology, data handling, documentation, and discussion of the data base. (1 Hr. conf.)
401. *Law and the Workplace*. S, I. 1 Hr. PR: M.D. degree, graduate standing, or consent. Philosophy, content, and procedures of current judicial bodies relevant to the practice of medicine in the industrial society, developed through a series of lectures followed by extensive discussion involving students from different curricular backgrounds. (1 hr. sem.)
412. *Medical Aspects of Environmental Health*. I and II. 1 Hr. PR: M.D. degree or consent. A review of issues illustrating the responsibilities and professional interaction of physicians in identifying, managing, and preventing casualties from environmental causes in air, water, soil, food, pesticides, and related subjects. (1 hr. lec.)
490. *Teaching Practicum*. I and II. 1-3 Hr. PR: Consent of chairperson. Supervised practice in college teaching of anatomy. Graded S or U.
- 491 A-Z. *Advanced Study*. 1-6 Hr. PR: Consent.
492. *Directed Study*. I, II, S. 1-6 Hr. Directed study, readings, and research.
493. *Special Topics*. I, II, S. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.
494. *Special Seminars*. I, II, S. 1-6 Hr. Special seminars arranged for advanced graduate students.
495. *Independent Study*. I, II, S. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.
496. *Graduate Seminar*. 1 Hr. PR: Consent. A one-credit hour seminar is designed to assist students in identifying their career objectives and exploring opportunities to achieve their career objectives.
497. *Research in Occupational Medicine*. I and II. 1-15 Hr. Variable credit. PR: Consent. Exercises in investigational medicine, illustrating the requirements and procedures relevant to the description and quantification of current issues in occupational medical practices.
498. *Thesis*. 2-4 Hr. PR: Consent.
499. *Graduate Colloquium*. 1-6 Hr. PR: Consent. For graduate students not seeking course work but who wish to meet residence requirements, use University facilities, and participate in academic and cultural programs.

Conjoined Basic Sciences (CC MD)

211. *Correlation Clinic*. 1 Hr.

321. *Introductory Clinical Sciences*. 2 Hr.

330. *Human Function*. 16 Hr. PR: For medical students and selected graduate students with instructor consent. Integrated approach combining biochemistry, genetics, and physiology of the human body. Includes molecular, subcellular, and cellular components of the body, organ systems, and whole body functions. Application of basic sciences to human health and disease. (Lec 14 hr., other 2 hr, contact 16 hr.)

340. *Patient-Centered Health Care*. 5 Hr. This course will introduce students to the biological, psychological, social, and spiritual dimensions of health care. Normal and abnormal development, ethical, legal, and spiritual aspects of health care will be explored in the context of health and health care decision making.

345. *Introduction to the Patient*. 7 Hr. This course will introduce the student to persons with health concerns. Students will begin development of skills of medical communication, data gathering, and physical examination techniques. (Lec 5 hr., Other 2 hr., contact 7 hr.)

350. *Radiation Safety and Radionuclide Usage*. II. 1-2 Hr. PR: PHYS 1 and 2, CHEM 15 and 16, or consent. Chemical, physical, and biological aspects of radiation; safety; handling and storage of radioactive materials; NRC and WVU regulations and licensing; detection and instrumentation, research, and clinical use of radioisotopes.

370. *Medical Genetics*. II. 2-4 Hr. PR: Second-year medical student standing; graduate student in genetics and developmental biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Application of genetic principles to human health and disease. (Also listed as GEN 370, MED 370, and PEDI 370.

375. *Neurobiology*. 6 Hr. PR: CCMD 330 and ANAT 303 or consent. Introduction to structure and function of the human nervous system with a focus on clinical application of basic science. Emphasis is on normal neurobiology (at cell/systems levels) essential to understanding human manifestations of neural pathology.

391 A-Z. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

399. *Selective Experiences in Medicine*. (Fourth year.) I, II, S. 6 HR. PR: Satisfactory completion of the first three years of medical curriculum. (Graded as S or U.) (The fourth year offers a wide range of opportunities. A one-month rotation in critical care, surgical subspecialty either a medicine, family medicine, or a pediatric subinternship and two months of a rural primary care rotation are all required in the fourth year. The student works with an advisor to select the remainder of the individual program. This program must also be approved by the associate dean in the Office of Student and Curricular Affairs. The year is composed of ten one-month blocks, four months of which must be spent in programs in West Virginia. Selections are available in all departments within the School of Medicine. A catalog is available that lists the specific guidelines for the fourth-year curriculum.)

490. *Teaching Practicum*. 1-3 Hr.

491. *Advanced Study*. 1-6 Hr.

492. *Directed Study*. 1-6 Hr.

493. *Special Topics*. 1-6 Hr.

494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.

496. *Graduate Seminar*. 1 Hr.

497. *Research*. 1-15 Hr.

498. *Thesis*. 2-4 Hr.

499. *Graduate Colloquium*. 1-6 Hr.

Exercise Physiology (EXPH)

164. *Kinesiology*. I, II. 3 Hr. PR: Junior standing. Anatomical, mechanical, and musculoskeletal study of the human body as the instrument for efficient performance of motor activities. (Laboratory work included.)
165. *Exercise Physiology 1*. I, II, S. 3 Hr. PR: Junior standing, consent. The study of the functioning of body systems during exercise and the acute and chronic adaptations that occur from exercise stress.
168. *Lab Techniques and Methods*. I, I, II. 3 Hr. PR: Junior standing; EXPH 164 and EXPH 165; consent. Techniques and methods for designing and conducting exercise programs for asymptomatic, healthy individuals.
190. *Teaching Practicum*. 1-3 Hr.
- 191 A-Z *Special Topics*. I, II, S. 1-3 Hr. PR: Consent. Investigation of topics not covered in regularly scheduled courses. (*Conditioning Techniques and Methods*. I, II. 3 hr.)
194. *Professional Field Experience*. I, II, S. Variable credit 1-18 Hr. PR: Consent (May be repeated up to a maximum of 18 hours.) Prearranged experimental learning program, to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development. (Internship.)
195. *Seminar*. 1-3 Hr.
196. *Senior Thesis*. I, II, S. 1-3 Hr. PR: Consent. (3 hr. arranged.)
197. *Honors*. 1-3 Hr.
198. A-Z *Special Topics*. 1-3 Hr.
250. *Theory of Aquatic Therapy*. 3 Hr. PR: Junior standing or consent. An introduction to aquatic therapy. It covers the historical perspective, biophysiologic response to water immersion, and application of aquatic therapy to specific physical diagnoses.
251. *Application of Aquatic Therapy*. 3 Hr. PR: Junior standing and consent. Design and implementation of aquatic exercise prescriptions to meet rehabilitation goals. Aquatic therapy techniques will be demonstrated and practiced.
252. *Aquatic Therapy Facility Management*. 3 Hr. PR: Junior standing and EXPH 251 and consent. Facility design, water chemistry, water safety, and aquatic programming for special populations including rehabilitation, community re-entry, and wellness programs in a comprehensive continuum of care.
360. *Biomechanical Analysis of Sport and Physical Activity*. II, S. 3 Hr. PR: EXPH 164 and EXPH 165 or equiv.; and SS 315. Advanced principles of body mechanics and analysis of muscle and joint actions in coordinated movement and neuromuscular physiology. Neuromuscular physiology.
367. *Exercise Physiology 2*. II. 3 Hr. PR: Consent. Thorough and workable knowledge of the functioning of body systems during exercise, the acute and chronic adaptations that occur, and the practical application of work physiology.
368. *Diabetes and Exercise*. II. 3 Hr. PR: Graduate standing, consent. In-depth study of topics related to the comprehensive management of patients with diabetes mellitus, with special emphasis on the use of exercise in diabetes care.
370. *Lab Techniques and Methods*. II. I, S. 3 Hr. PR: Graduate standing, consent. This course teaches the techniques and methods used to monitor physiologic systems in humans during rest and exercise. It includes methods used to assess the health status of individuals desirous of exercise testing or prescription.
371. *Stress Testing*. II. 3 Hr. PR: EXPH 370, consent. In-depth study of graded exercise testing in laboratory or field situations. The course includes protocols for athletes, asymptomatic individuals, and special populations.

372. *Professional Field Placement*. II. I, II, S. 1-18 Hr. PR: EXPH 370, and EXPH 371, consent. Prearranged program to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development. (Internship.)

391. *A-Z Advanced Topics*. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

397. *Research*. 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

490. *Practicum*. I, II, S. 1-3 Hr. PR: Consent. Supervised practice in teaching exercise physiology.

491. *A-Z Advanced Study*. I, II, S. 1-6 Hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

492. *A-Z Directed Study*. I, II, S. 1-6 Hr. Directed study, reading, and/or research.

493. *Special Topics*. I, II, S. 1-6 hr. PR: Consent. A study of contemporary topics selected from recent developments in the field.

494. *Special Seminars*. I, II, S. 1-6 Hr. Special seminars arranged for advanced graduate students.

495. *Independent Study*. I, II, S. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

496. *Graduate Seminar*. 1 Hr. PR: Consent. It is anticipated that each graduate student will present at least one seminar to the assembled faculty and graduate student body of his/her program. (Graded S/U).

497. *Research*. 1-15 Hr.

498. *Thesis*. 2-4 hr. PR: Consent.

499. *Graduate Colloquium*. 1-6 Hr. PR: Consent. For graduate students not seeking course work but who wish to meet residence requirements, use University facilities, and participate in academic and cultural programs.

Family Medicine (FMED)

331. *Clerkship*. 8 Hr. PR: Successful completion of first two years of medical school. A four-week ambulatory experience in the office setting; rotations to clinics within the University system and also to private practitioner offices throughout the state. Lecture, lab., conference, and patient care.

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

Medical Technology (MTEC)

1. *Orientation to Medical Technology*. I, II. 2 Hr. Introduction to the profession of medical technology and the clinical laboratory specialties. (Pass/fail grading only.)

3. *Introduction to Medical Laboratory Technology*. 3 Hr.

100. *Medical Technology*. 4 Hr. PR: Acceptance into the medical technology program as a first-year student or consent by director. Clinical Laboratory procedures employed in patient diagnosis in the areas of blood coagulation, blood banking, hematology, and clinical microscopy.

101. *Medical Technology 2*. II. 4 Hr. Continuation of MTEC 100.

190. *Teaching Practicum*. 1-3 Hr.

191. *Special Topics*. 1-3 Hr.

194. *Professional Field Experience*. 1-18 Hr.

195. *Seminar*. 1-3 Hr.

196. *Senior Thesis*. 1-3 Hr.

197. *Honors*. 1-3 Hr.

200. *Orientation*. I, II, S. No credit. (For senior students.) Principles and practices of medical technology in relation to the hospital and clinics. (Pass-fail grading only.)

201. *Phlebotomy*. I, II, S. 1 Hr. PR: Enrollment in medical technology program, MTEC 100 and MTEC 101. Clinical laboratory practice, including venipuncture, finger sticks, and heel sticks; isolation, universal precaution, and other safety techniques are included.

202. *Laboratory Math, Quality Control, Computers*. I. 2 Hr. Lectures and practice sessions in laboratory mathematics, techniques, and calculations in quality control and an introduction to computers to include terminology and basic operation.

210. *Clinical Laboratory Mycology*. II. 1 Hr. How to isolate and identify the more commonly encountered pathogenic fungi as well as those fungi frequently seen as laboratory contaminants. The course will include basic taxonomy, isolation procedures, and identifying characteristics.

220. *Immunohematology and Blood Banking*. I, II. 2 Hr. Lectures on immunohematology and blood banking theory and practice.

221. *Immunohematology and Blood Banking Laboratory*. Arranged. 5 Hr. Clinical laboratory practice in blood banking procedures. Emphasis on procedures required for collection and preparation of blood and blood components for transfusion, special techniques, antibody studies, and problem solving.

229. *Basic Clinical Chemistry*. II. 1 Hr. PR: Students in medical technology program. Basic clinical chemistry procedures and theory. (1 hr. lec.)

230. *Clinical Chemistry*. I, II. 2 Hr. Lectures on principles of clinical chemistry procedures; their clinical significance and implication in diagnosis.

231. *Clinical Chemistry Laboratory*. Arranged. 5 Hr. Practice in the clinical chemistry laboratory.

240. *Clinical Hematology*. I, II. 2 Hr. Lectures in hematologic theory and practice.

241. *Clinical Hematology Laboratory*. Arranged. 5 Hr. Application of hematological principles to laboratory medicine. Emphasis on routine and specialized procedures, evaluation, and problem solving.

250. *Clinical Microbiology*. I, II. 2 Hr. Presentation and discussion of current methodology employed in the processing of clinical microbiology specimens, isolation and identification of pathogenic microorganisms, and determination of antimicrobial sensitivities.

251. *Clinical Microbiology Laboratory*. Arranged. 5 Hr. Practice in the clinical microbiology laboratory to include isolation and identification of microorganisms; processing of specimens and antibiograms. Includes experiences in pathogenic mycology and parasitology.

260. *Instrumentation*. I, II, S. 2 Hr. Principles of clinical laboratory instrumentation for medical technologists including principles of operation, maintenance, and troubleshooting.

265. *Laboratory Management*. I, II. 2 Hr. Laboratory organization, economics, ethics, and records.

270. *Clinical Microscopy*. I, II, S. 1 Hr. PR: Senior standing in medical technology or consent. Lecture to cover the screening of body fluids (urine, gastric juices, etc.) for abnormalities and pregnancy testing.

271. *Clinical Microscopy Laboratory*. I, II, S. 1 Hr. PR: Senior standing in medical technology, or consent. Laboratory practicum in urinalysis, gastric analysis, pregnancy test, and other procedures.

275. *Medical Relevance of Laboratory Analysis*. 1 Hr. PR: Senior status in medical technology. Case presentations of pathologic entities encountered in the clinical laboratory. (Pass/fail grading.)

280. *Clinical Immunology*. I, II, S. 3 Hr. Lectures and laboratory practice in the principles of clinical immunology and their relationship to clinical laboratory technology.

291. *Research, Educational Methodology*. II, 2 Hr. Lectures in ethics, techniques of research, and techniques of educational methodology for medical technology students.

300. *Seminar*. I, II, S. 1 Hr. Seminars include topics in laboratory management and education in medical technology, and timely topics. Minimum of three semester hours to include all three topics is required of all graduate students in the medical technology program.

391. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation in advanced subjects which are not covered in regularly scheduled courses.

397. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project.

Medicine (MED)

321. *Physical Diagnosis-Introduction to Medicine*. I, II. 5 Hr. PR: Consent. Examination of normal subjects. Clinical concepts and practical experience in history taking and physical examination.

322. *Physical Diagnosis 2*. 5 Hr.

331. *Clinical Clerkship in Medicine*. (Third year.) CR. Required of third year medical students. The individual student is assigned responsibility for specific patients from the inpatient and outpatient services at West Virginia University Health Sciences Center or Charleston Area Medical Center service. The student is an integral part of the team providing diagnostic and treatment services needed by the patient, under direct supervision of members of the faculty of the department. The student elicits the patient's history, performs physical examinations, and performs or secures indicated laboratory and clinical studies. The student records findings and presents case reports for discussion by members of the faculty during hospital rounds or outpatient clinics. The student attends such conferences, as directed. Clerkship in medicine occupies eight weeks.

370. *Medical Genetics*. II. II. 2-4 Hr. PR: Second-year medical student standing; graduate student in genetics and developmental biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Applications of genetic principles to human health and disease. (Also listed as GEN 370, PEDI 370, CCMD 370.)

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

Microbiology and Immunology (MBIM)

26. *Microbiology*. II. (For students in nursing and dental hygiene programs.); All students must have consent of instructor. I. 3 Hr. PR: CHEM 11, and CHEM 12 or equiv.

190. *Teaching Practicum*. 1-3 Hr.

191. *Special Topics*. 1-3 Hr.

194. *Professional Field Experience*. 1-18 Hr.

195. *Seminar*. 1-3 Hr.

196. *Senior Thesis*. 1-3 Hr.

197. *Honors*. 1-3 Hr.

220. *Pathogenic Microbiology*. (For pharmacy students.) 4 Hr. PR or Conc.: Biochemistry. Pathogenic microorganisms, including immunology and antimicrobial agents.

223. *Microbiology*. (For medical technology students; other students with consent.) II. 5 Hr. PR or Conc.: Biochemistry. Basic microbiology. Emphasis on immunology, pathogenic microorganisms, and clinical laboratory techniques.

224. *Parasitology*. (For medical technology students; other students with consent.) II. 4 Hr. Study of animal parasites and disease vectors with emphasis on disease manifestations, parasite biology, and laboratory diagnosis.

301. *Microbiology*. (For medical students and a limited number of graduate students in the Health Science Center's basic science departments.) I. 4-7 Hr. PR: Organic chemistry, biochemistry. Detailed study of pathogenic microorganisms and immunology. Emphasis on use of microbiology in solving clinical problems.

302. *Microbiology*. (For dental students only.) I. 5 Hr. PR: Organic chemistry. Detailed study of pathogenic microorganisms. Emphasis on oral flora.

310. *Structure and Activities of Microorganisms*. II. 2-7 Hr. PR or Conc.: Biochemistry, consent. Molecular biology of *e. coli* and other selected organisms.

311. *Principles of Infection and Resistance*. 1-5 Hr.

317. *Special Problems in Microbiology*. I, II, S. 1-7 Hr. *Graduate Immunology and Virology*. I. 3 hr. PR: Consent. *Parasitology laboratory*. II. 1 Hr. PR: Consent. B. *Graduate Pathogenic Microbiology*. II. 3 Hr. PR: Consent. C. *Special Problems in Post Graduate Dental Microbiology*. II. 4 Hr. PR: Consent.

317. A-Z. *Special Problems in Microbiology*. I, II, S. 1-6 Hr. PR: Consent. *Parasitology laboratory*. II. 1 Hr.

325. *Medical Mycology*. 4 Hr.

327. *Parasitology*. (For graduate students.) II. 4 Hr. PR: Consent. Study of animal parasites and disease vectors with emphasis on disease manifestations, parasite biology, laboratory diagnosis, and current concepts in parasitological research.

391. *Advanced Topics*. I, II, S. 1-6 Hr. PR: Consent. Investigation of advanced topics not covered 3 Hr. PR: Consent; For graduate students in microbiology and immunology. Assigned study to develop research laboratory techniques. Graded S or U. B. *Immunology*. I, II, S. VR. PR: Consent. Independent study in immunology.

391. A-Z *Advanced Topics*. I, II, S. Variable 1-6 Hr. PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses. A. *Laboratory Rotation*. I. 3 hr. PR: Consent; For graduate students in Microbiology and Immunology. Assigned study to develop research laboratory techniques. Graded S or U. B. *Immunology*.

397. *Research*. I, II, S. 1-15 Hr. PR: Consent. Research activities leading to a thesis, problem report, research paper, or equivalent scholarly project. Students may enroll more than once. (Graded S or U). Student is required to pursue study on a problem in the student's area of concentration.

399. *Special Topics in Microbiology, Cell Biology*. II. 3 Hr. PR: Biochemistry; 1 yr. undergraduate biology; consent. Lectures in selected areas of cell biology.

490. *Teaching Practicum*. I and II. 1-3 Hr. PR: Consent. Supervised practices in teaching of microbiology. Graded as S or U.

491 A-Z. *Advanced Study. Pathogenic Bacteriology*. I. 1-6 Hr. PR: MBIM 301 and 310 or equiv. Consent. Pathogenic bacteriology with an emphasis on the mechanisms of pathogenesis. Topics include microbial adherence, toxin production and mechanisms, and normal flora and disease. *Clinical Laboratory Bacteriology*. II. VR. PR: MBIM 301, 310, or equiv. Consent. Lectures on the identification of pathogenic microorganisms with an emphasis on bacteria. The laboratory includes a rotation through the hospital clinical microbiology laboratory. Limited enrollment. Graded S or U. *Microbial Genetics*. I. 3 Hr. PR: MBIM 310 or equiv. Consent. Molecular aspects of mutation, gene transfer mechanisms, genetic mapping, and genetic control using bacteria and bacteriophage systems as models. *Microbial Metabolism*. II. 2 Hr. PR: MBIM 310, or equiv., biochemistry, consent. Physiology, metabolism, and regulation of representative microbial groups. *Microbial Metabolism Laboratory*. II. 1 Hr. PR: Open to departmental graduate students only. Research techniques in metabolic regulation. *Medical*

Mycology. I. 3 Hr. PR: Consent. Advanced study of fungi of medical importance, including the pathobiology of mycoses and toxicoses. *Molecular Virology*. I. 3 Hr. PR: MBIM 301, 310, or equiv., consent. Molecular biology of viruses that are important both biologically and medically. Includes a basic introduction to replication and genetics as well as current topics in molecular virology. *Developmental Immunology*. I. 3 Hr. PR: Consent. Examines the development of the lymphoid components of the immune system (B and T lymphocytes) and interactions leading to effective immune responses. *Cellular and Genetic Basis of the Immune Responses*. I. 3 Hr. PR: Consent. Emphasis is on contemporary issues in understanding the genetic and cellular elements that impact immune responses. *Contemporary Topics in Immunobiology*. II. 3 Hr. PR: Consent. Detailed coverage of major issues of contemporary research in immunobiology. *Systems Immunology*. II. 3 Hr. PR: Consent. An integrative systems approach to immunology stressing how immunologic recognition is translated into biologic consequences. Advanced treatment of different aspects of the efferent arm of immune responses.

492. *Directed Study*. I, II, S. 1-6 Hr. Directed study, readings, and research.

493. *Special Topics*. I, II, S. 1-6 Hr. A study of contemporary topics selected from recent developments in the field.

494. *Special Seminars*. 1-6 Hr. Special seminars arranged for advanced graduate students.

495. *Independent Study*. I, II, S. 1-6 Hr. Faculty supervised study of topics not available through regular course offerings.

496. *Seminar*. I, II. 1 Hr. PR: Consent. Graduate students present at least one seminar to assembled faculty and students in microbiology and immunology. Graded S or U.

497. *Research or Dissertation*. I, II, S. 1-15 Hr. Students may enroll more than once. Graded S or U.

498. *Thesis*. 2-4 hr. PR: Consent.

499. *Graduate Colloquium*. 1-6 Hr.

Neurology (NEUR)

341. *Clinical Clerkship in Neurology*. (Third year.) 2 Hr. Required of third-year students. Basic fundamentals of the neurological evaluation and neurological diseases. Evaluation and treatment of hospitalized patients with neurological illnesses performed under supervision of attending and resident physicians. Conferences and correlative instruction in neuropathology and neuroradiology.

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

Obstetrics and Gynecology (OBST)

341. *Clinical Clerkship in Obstetrics and Gynecology*. 8 Hr. (Required of third-year medical students.) Presents core knowledge of obstetrics and gynecology with small group instructional seminars, ward rounds, didactic teaching sessions and grand rounds conducted by faculty, house officers, visiting faculty, and students. Students participate in the care of all inpatients and attend all departmental clinics.

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

Pathology (PATH)

128. *Introduction to Basic Pathology*. I. 2 Hr. PR: Enrollment in dental hygiene or physical therapy, or consent. A study of the basic pathologic processes in man.

129. *Introduction to Oral Pathology*. II. 3 Hr. PR: PATH 128, dental hygiene major, or consent. Application of fundamental knowledge of general pathology to pathological conditions that occur in the oral cavity.

190. *Teaching Practicum*. 1-3 Hr.
191. *Special Topics*. 1-3 Hr.
194. *Professional Field Experience*. 1-18 Hr.
195. *Seminar*. 1-3 Hr.
196. *Senior Thesis*. 1-3 Hr.
197. *Honors*. 1-3 Hr.
328. *General Pathology*. (For dental and graduate students). II. 5 Hr. PR: Consent. The broad spectrum of human diseases is studied at the clinical, physiological, and biochemical levels.
338. *Oral Pathology 1*. 3 Hr.
350. *Hematology*. 3 Hr. (For certain graduate students, with consent of the chairperson.) Includes morphologic description of formed elements of blood including classification of red blood cell, white blood cell, reviews are integral parts of the course work.
351. *Pathology and Laboratory Medicine*. (For medical students and limited number of regular full-time graduate students in medical basic sciences and consent of the chairperson.) I. 8 Hr. PR: Medicine 1 curriculum. Presents pathology as a body of knowledge and a discipline, including laboratory aspects of disease. General pathology, including cell injury, inflammation, neoplasia, thrombosis and circulatory disturbances, is followed by a systemic approach to disease states.
352. *Pathology and Laboratory Medicine 2*. (For medical students and limited number of regular full-time graduate students in medical basic sciences and consent of the chairperson.) II. 7 Hr. PR: PATH 351. Continuation of PATH 351.
353. *Oral Pathology*. (For dental students.) I. 2 Hr. PR: Consent; DENT 338. Continuation of DENT 338.
355. *Clinico-Pathologic Correlation Conference*. (For dental students.) II. 1 Hr. PR: Consent; DENT 338, 353. Interesting oral histologically. Diagnosis is established and treatment discussed by faculty and students.
356. *Advanced Pathology*. I, II. 3 Hr. PR: PATH 328 or 351; consent. Microscopic and gross specimens from selected autopsies.
382. *Advanced Oral Histopathology*. (For dental and graduate students, residents, and interns.) I and II. 1-2 Hr PR: Consent; DENT 338, 353. An elective seminar stressing the significant microscopic features and diagnosis of various oral lesions.
391. *Advanced Topics*. 1-6 Hr.
397. *Pediatric Oral Pathology*. I. 1-15 Hr. PR: Consent. Lecture and seminar course on inherited diseases and other pathologic situations of oral cavity and face specific for pediatric age group.
401. *Special Studies in Oral Pathology*. (For dental and graduate students, residents, and interns.) I. 1-3 Hr. PR: Consent. Advanced study of local or systemic disease processes affecting oral structures through seminars, assignment of specific topics, or research activities.
490. *Teaching Practicum*. 1-3 Hr.
491. *Advanced Study*. I, II, S. 1-6 Hr. PR: Consent. Investigation in advanced topics which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.
492. *Directed Study*. 1-6 Hr.
493. *Special Topics*. 1-6 Hr.

- 494. *Special Seminars*. 1-6 Hr.
- 495. *Independent Study*. 1-6 Hr.
- 496. *Graduate Seminar*. 1 Hr.
- 497. *Research*. 1-15 Hr.
- 498. *Thesis*. 2-4 Hr.
- 499. *Graduate Colloquium*. 1-6 Hr.

Pediatrics (PEDI)

331. *Clinical Clerkship in Pediatrics*. (Third year.) CR. Required of third-year medical students. 8 Hr. See description of clinical clerkship under MED 331. Clerkship in pediatrics occupies six weeks.

370. *Medical Genetics*. II. 2-4 Hr. PR: Second-year medical student standing; graduate student in genetics and developmental biology; others by consent. Introduction to clinical genetics including molecular, biochemical, and cytogenetic aspects of human biology. Application of genetic principles to human health and disease. (Also listed as CCMD 370, GEN 370, MED 370.)

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

Pharmacology and Toxicology (PCOL)

160. *Pharmacology*. (For undergraduate students in the paramedical sciences.) II. 3 Hr. Interactions of clinically useful therapeutic agents with the mammalian systems.

190. *Teaching Practicum*. 1-3 Hr.

191. *Special Topics*. 1-3 Hr.

194. *Professional Field Experience*. 1-18 Hr.

195. *Seminar*. 1-3 Hr.

196. *Senior Thesis*. 1-3 Hr.

197. *Honors*. 1-3 Hr.

243. *Pharmacology for Pharmacy Students*. I. 4 Hr. PR: Completion of first year in pharmacy; approval of course director. Principles, pharmacodynamic actions, and therapeutic applications of clinically useful drugs.

343. *Pharmacology 1*. 3 Hr. PR: Second year professional standing or consent. Cellular and biochemical effects that explain the therapeutic or adverse effects of drugs. These will be integrated into considerations of drug effects, toxicities, and interactions between drugs.

344. *Pharmacology 2*. 3 Hr. PR: Second year professional standing or consent. Continuation of *Pharmacology 1*. Cellular and biochemical effects that explain the therapeutic or adverse effects of drugs. These will be integrated into considerations of drug effects, toxicities and interactions between drugs.

360. *Pharmacology and Therapeutics*. (For dental and graduate students.) I. 4 Hr. PR: Dental student standing or consent. Lecture and demonstrations on pharmacological actions and therapeutic uses of drugs.

361. *Pharmacology* (For medical students and a limited number of regular, full-time graduate students in basic medical science departments.) II. 1-6 Hr. PR: Consent of department chairperson. Lecture-conference-laboratory on principles, pharmacodynamic actions, and therapeutic applications of clinically useful drugs.

362. *Occupational Toxicology*. II. 3 Hr. PR: Consent. General principles of toxicology with special emphasis on occupational health. Classes of chemicals which pose problems in the workplace will be emphasized.

363. *Toxicology*. 3 or 4 Hr.

364. *Advanced Pharmacology*. I. (Alternate years.) 1-6 Hr. PR: PCOL 361 or consent. Advanced lectures and discussion of general principles of pharmacology and toxicology and advanced lectures in biochemical, endocrine, pulmonary, and cardiovascular pharmacology. (1-6 hr. lec.) (Offered every second year.)

367. *Advanced Neuropharmacology*. I. 1-6 Hr. PR: PCOL 361 or consent. Advanced lectures and discussion on drug receptor theory, neurophysiological aspects of pharmacology, supersensitivity, and the actions of drugs on the central and peripheral nervous system. (1-6 hr. lec.) (Offered every second year.)

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

461. *Seminar in Pharmacology*. I, II. 1 Hr. per sem. PR: PCOL 361 or graduate status in basic medical sciences.

462. *Literature Survey*. I, II. 1 Hr. per sem. PR: Graduate status in pharmacology and toxicology. Current literature pertinent to pharmacology and toxicology including journals of allied biological sciences.

490. *Teaching Practicum*. I, II. 1-3 Hr. per sem. PR: PCOL 361 and consent. (For advanced graduate students.) Critical evaluation of preparation and delivery of lectures in specified areas of pharmacology and toxicology.

491. *Advanced Study*. I, II. 1-6 Hr. PR: Consent of chairperson.

492. *Directed Study*. 1-6 Hr.

493. *Special Topics*. 1-6 Hr.

494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.

496. *Graduate Seminar*. 1 Hr.

497. *Research*. I, II, S. 1-15 Hr. per semester.

498. *Thesis*. 2-4 Hr.

499. *Graduate Colloquium*. 1-6 Hr.

Physical Therapy (PT)

100. *Essentials of Clinical Anatomy*. I. 4 Hr. A study of human gross anatomy, micro anatomy, and embryology with major emphasis on the musculoskeletal system.

101. *Professional Foundations*. I. 4 Hr. Introduction to fundamentals of professional behavior for the physical and occupational therapist. Includes units on communication, documentation, ethics, interdisciplinary teamwork, licensure requirements, and medical terminology.

102. *Survey of Clinical Problem-Solving and Scientific Inquiry*. I. 2 Hr. An introduction to analysis of clinical and research problems, including strategies for problem analysis and outcome.

103. *Functional Movement Across the Lifespan*. I. 2 Hr. An overview of motor learning including acquisition of developmental patterns, motor control, motor skill acquisition. This course also provides an overview of the effects of normative processes of aging on neuro-motor patterns in occupational performance.

104. *Clinical Sciences*. I. 4 Hr. An introduction to pathology, radiology, pharmacology, hematology and laboratory tests specific to the patient population encountered by the occupational and physical therapist.

106. *Kinesiologic Foundations*. II. 4 Hr. PR: Admission to professional program in PT or OT. Functional anatomical correlations and human movement. Statics, biomechanics, dynamics and functional movement analysis. (2 hr. lec., 4 hr. lab.)

107. *Neurobiologic Foundations*. II. 4 Hr. PR: Enrolled in professional sequence. Basic and clinical applications of neuroanatomy and neurology. Includes lectures on neurophysiological basis of physical and occupational therapy practice. (3 hr. lec., 2 hr. lab.)

108. *Evaluation Procedures*. II. 3 Hr. Theory and practice in evaluation procedures used by therapist. Includes Manual Muscle Test, isokinetic muscle testing, and assessment of components of movement, posture, balance, and hand function. (1 hr. lec., 2 hr. lab.)

109. *Introduction to Clinical Decision Making*. II. 1 Hr. P/F. Introduction to the problem-based Learning method utilizing guided case study presentations. Students learn to obtain appropriate patient history and background, identify learning issues, and synthesize information from a variety of sources to present and appropriate plan of physical therapy management of various patient dysfunctions.

184. *Clinical Education 1*. 1 Hr. Students observe various members of the health care team in practice. Students practice verbal and written communication skills. Course open to PT majors. (Contact hours - 3.)

185. *Clinical Education 2*. I. 2 Hr. PR: Successful completion of all preceding professional coursework. CPR certification. Practice of basic clinical and written and verbal skills. Includes one full-time, one-week supervised clinical rotation with a licensed physical therapist. Student will submit a case report based on a client seen during that rotation. (Lec. 1 hr., other 1 hr., contact 2 hr.)

190. *Teaching Practicum*. 1-3 hr.

191. *Special Topics*. 1-3 hr.

194. *Professional Field Experience*. 1-18 hr.

195. *Seminar*. 1-3 hr.

196. *Senior Thesis*. 1-3 hr.

197. *Honors*. 1-3 hr.

199. *Advanced Clinical Anatomy*. S. 2 Hr. This course presents advanced problem-based study in select topics dealing with clinical application of gross anatomy to physical therapy practice. Laboratory work includes dissection and computer based instructional sessions.

201. *Clinical Sciences 2*. 4 Hr. Introduction to selected topics in clinical medicine which are basic to physical therapy practice. Topics include metabolic and endocrine disorders, oncology, dermatology, wound care, and burns. (Contact hours - 4.)

202. *Clinical Decision Making 1*. 2 Hr. Continuation of preparation of critical thinking and decision making in the clinic. Emphasis is on autonomous practice and decisions regarding referral to other members of the health care team. Students work in small groups in a problem based learning format. (Contact hours - 2.)

204. *Physical Therapy Procedures 1*. I. 3 Hr. Introduction, theoretical basis, and laboratory practice of procedures basic to physical therapy, such as gait training, wheelchair management, and massage. Format for the class is primarily laboratory/demonstration with time to practice the various techniques. (Lec. 1 hr. + lab. 4 hr. = contact 5 hr.)

206. *Cardiopulmonary Rehabilitation*. 3 Hr. Correlation of anatomy, physiology, and pathology for the treatment of cardiopulmonary conditions. Laboratory in cardiopulmonary evaluation, cardiac and pulmonary rehabilitation procedures, and respiratory treatment techniques. Lecture and case presentations in appropriate medical and surgical conditions (Contact hours - 3.)

210. *Orthopedic Physical Therapy 1*. I. 2 Hr. Evaluation and rehabilitation of mechanical disorders of the spine and upper extremities. Course includes lecture, case study and laboratory practice of evaluation and treatment skills common to physical therapy management of orthopedic problems. (Lec. 2 hr. + lab. 4 hr = contact 6 hr.)
216. *Clinical Decision Making 2*. 3 Hr. Graded as pass/fail only. Continuation of preparation for critical thinking and decision making in the clinic. Emphasis is on interdisciplinary team format.
217. *Geriatric Physical Therapy*. II. 2 Hr. Students are provided information about medical and psychosocial factors associated with aging. Study of the role of physical therapy in geriatrics, including laboratory practice of common evaluation and treatment procedures. (1 hr. lec. 2 hr. lab.)
219. *Professional Values*. 3 Hr. PR: Majors only. Students investigate various professional, ethical, and practice issues through written assignments and class presentations. Students study Appalachian culture and the effects of cultural mores on professional practice.
220. *Therapeutic Physical Agents*. 4 Hr. PR: Physical therapy majors only; must have successfully completed the required previous coursework in the professional sequence. Students learn theory and background of various physical therapeutic agents. Student practice application of agents in laboratories.
221. *Developmental Life Tasks*. II. 3 Hr. Life-span human development across cognitive, psychosocial, and neuromotor domains with particular emphasis on applications to physical or occupational therapy interventions. Cultural influences in health and illness.
225. *Physical Therapy Procedures 2*. 3 Hr. Theory and clinical application of therapeutic exercise techniques. (2 hr. lec., 2 hr. lab.)
250. *Orthopedic Physical Therapy 2*. 4 Hr. Continuation of PT 21 format and is a continuation of that course. Evaluation and rehabilitation of mechanical disorders of the lumbar spine and lower extremity is emphasized. (2 hr. lec. and 4 hr lab.)
300. *Health Care Issues in PT*. 2 Hr. PR: Majors only. The roles of physical therapists as advocates of people with disabilities are discussed. Investigation of community and home barriers is included. Students and clinicians discuss the roles of and demands on physical therapists in various practice settings.
301. *Management for PT Practice*. 3 Hr. PR: Majors only. Principles of business and management are covered as they apply to contemporary physical therapy practice. Fiscal management, risk management, marketing, and program improvement are addressed.
302. *PT Research 1*. 3 Hr. Introduces research theory and application with special emphasis on physical therapy. Includes elements of research design, hypothesis testing, methodology, literature review, analysis, and statistical methods. Students are required to complete a research proposal.
303. *Pediatric Physical Therapy*. I. 2 Hr. Survey of developmental conditions commonly seen in pediatric physical therapy. Includes laboratory practice of evaluation, treatment planning, and clinical problem solving.
305. *Prosthetics and Orthotics*. 3 Hr. Presents the principles of biomechanics as they apply to prosthetic and orthotic prescription and fabrication. Student learns how to plan and implement rehabilitation programs for patients that must use orthotic or prosthetic.
306. *Neurologic Physical Therapy*. 4 Hr. Prepares physical therapy students to perform examinations and treatments of patients with a variety of neurologic diagnoses. Introduces the students to assistive technology and adaptive equipment as adjuncts to treatment.
350. *Education in PT Practice*. 3 Hr. Designed to allow students to practice the fundamental elements of developing instructional units for a variety of audiences. The students will produce educational materials for use in physical therapy practice.
351. *PT in the Community*. 3 Hr. PR: Majors only. Students investigate community services and the role of the physical therapist in promotion of community health.

380. *Case Reports Seminar*. 2 Hr. PR: Majors only. Students prepare oral and written case reports based on their patient care experiences.

384. *Clinical Education 2*. 6 Hr. PR: Physical therapy majors only; must have completed first two years of the professional sequence. Students practice full-time for twelve weeks under the direction of licensed physical therapists, and participate in rural health projects.

391. *Advanced Topics*. 1-6 Hr.

490. *Teaching Practicum*. I, II. 1-3 Hr.

494. *Special Seminars*. I, II, S. 1-6 Hr. Special seminars arranged for advanced graduate students.

Physiology (PSIO)

141. *Elementary Physiology*. (For undergraduate students in paramedical sciences.) II. 4 Hr. PR: College biology and chemistry, or consent. Systematic presentation of basic concepts. (4 hr. lec.)

190. *Teaching Practicum*. 1-3 Hr.

191. *Special Topics*. 1-3 Hr.

194. *Professional Field Experience*. 1-18 Hr.

197. *Honors*. 1-3 Hr.

241. *Mechanisms of Body Function*. I. 4 Hr. PR: College chemistry, biology, physics, and algebra or graduate status and consent. A systematic examination of the homeostatic functions of the human body with emphasis on the physicochemical mechanisms involved. Pathophysiology and clinical correlations are introduced in relation to normal physiology. (4 hr. lec.)

248. *Experimental Design*. 3 Hr.

341. *Physiological Methods 1*. II. 1-5 Hr. PR: Consent. Research techniques and strategies for physiology.

342. *Physiological Methods 2*. II. 1-4 Hr. PR: Consent. Research techniques and strategies for physiology.

343. *Fundamentals of Physiology*. (For dental students and a limited number of regular full-time graduate students in the Health Sciences Center's basic sciences departments.) I. 5 Hr. PR: College physics, algebra, chemistry, and consent of department chairperson. Analysis of basic facts and concepts relating to cellular processes, organ systems, and their control. (3 lec., 1 conf., 1 lab.)

344. *Medical Physiology 1*. (For medical and a limited number of regular full-time graduate students in the Health Sciences Center's basic sciences departments.) I. 5 Hr. PR: College physics, algebra, chemistry, and consent of department chairperson. Analysis of basic facts and concepts relating to cellular processes, organ systems, and their control with clinical correlations. (5 lec., 1 conf.-lab.)

345. *Medical Physiology 2*. (For medical and a limited number of regular full-time graduate students in the Health Sciences Center's basic sciences department.) 5 Hr. PR: PSIO 344 and consent of department chairperson. Continuation of PSIO 344. (5 lec., 1 conf.-lab.)

346. *Neurophysiology*. (For graduate students in the Health Sciences Center's basic sciences departments and a limited number of regular full-time graduate students.) II. 1-4 hr. PR: MATH 3 or 141, PHYS 1 and 2 or consent of department chairperson. Properties of excitable tissues (nerve and muscle), synaptic transmission, reflexes and central nervous system function, and behavior. (1-3 lec., 1 conf.)

350. *Graduate Physiology 1*. (For graduate students in the Health Sciences Center's basic sciences departments and a limited number of other regular full-time graduate students.) I. 6 Hr. PR: Calculus, college physics, organic chemistry, biology, and consent of department chairperson. Analysis of basic facts and concepts relating to cellular processes, organ systems, and their control.

351. *Graduate Physiology 2*. (For graduate students in the Health Sciences Center's basic sciences departments and a limited number of other regular full-time graduate students.) II. 6 Hr. PR: PHYS 344 or 350 and consent of department chairperson. Continuation of PHYS 350.

391. *Advanced Topics*. 1-6 Hr.

397. *Thesis*. I, II, S. 1-15 Hr. PR: Consent. (Graded S or U.)

399. *Special Topics*. I, II, S. 1-12 Hr. PR: Consent. Assigned study to develop research skills.

444. *Graduate Seminar*. I, II. 1-3 Hr. PR: Graduate standing and consent. (Graded S/U.)

490. *Teaching Practicum*. I, II. 1-3 Hr. PR: Consent. Supervised practices in college teaching of physiology. (Graded as S or U.)

491. *Advanced Physiology*. I, II, S. 1-15 Hr. PR: Consent. Lecture-conference in: cellular physiology, neurophysiology, circulation, respiration, acid-base and renal physiology, digestion and energy metabolism, and endocrinology. (3 lec., 3 conf.)

492. *Directed Study*. 1-6 Hr.

493. *Special Topics*. 1-6 Hr.

494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.

496. *Graduate Seminar*. 1 Hr.

497. *Research in Physiology*. I, II, S. 1-15 Hr.

498. *Thesis*. I, II, S. 2-4 Hr. PR: Consent. (Graded as S or U.)

499. *Graduate Colloquium*. I, II. 1-6 Hr. PR: Consent. (Graded as S or U.)

Surgery (SURG)

301. *Introduction Laboratory Animals Experiments*. 3 Hr.

341. *Clinical Clerkship in Surgery*. (Third year.) CR. Required of third-year medical students. Clinical clerks are assigned responsibility for hospitalized surgical patients under supervision of house staff and attending surgeons. Students are an integral part of the team providing diagnostic and treatment services and are expected to take histories, perform physical examinations, and participate in ward and laboratory procedures. A course of surgical lectures, designed to outline surgical core curriculum, is given concurrently. The student is expected to attend the daily rounds and conferences arranged by the department.

391. *Advanced Topics*. 1-6 Hr.

397. *Research*. 1-15 Hr.

399. *Selected Experiences in Surgery*. (Fourth year.) (See conjoined courses.)

School of Nursing

Nursing (NSG)

(For Nursing Majors Only)

10. *Health and the Caring Professions*. I, II, S. 3 Hr. Health promotion and risk reduction; data collection; cultural diversity; values that contribute to health; interpersonal communication in promoting professional relationships.

21. *Human Responses 1*. I. 3 Hr. PR: NSG 10 and Soph. standing or consent; computer technology. Human responses that promote health throughout the life span; individual health assessment.

23. *Seminar 1: Professional Role Development*. I. 1 Hr. PR: NSG 10, Sophomore standing or consent. Characteristics of self in role transition; values and beliefs; personal and professional behaviors in nursing care.

25. *Nursing Interventions 1*. I. 3 Hr. Conc.: NSG 21; Soph. Standing or consent. Critical thinking in application of the nursing process in individuals with altered mobility, comfort, or potential infection; health protection, promotion, and maintenance interventions.

41. *Human Responses 2*. II. 2 Hr. PR: NSG 25; Conc.: NSG 45. Enhances student understanding of human responses to minor deviations in health throughout the life span; professional role in health restoration; family health assessment.

43. *Seminar II: Professional Role Development*. II. 2 Hr. PR: NSG 23. Emphasis on developing caring behaviors through examination of issues related to moral/ethical integrity; values, culture, and family.

45. *Nursing Interventions 2*. II. 4 Hr. PR: NSG 25. Critical thinking in the application of the nursing process to individuals with minor deviations in health protection, health restoration, and health promotion/maintenance.

61. *Health Assessment*. S. 3 Hr. PR: NSG 25 or consent. Comprehensive, in-depth assessment of the client's health status, health patterns, physical examination, and health history. Interviewing techniques including taped interactions and accurate recordings of data for clients across the life span.

132. *Human Response: Phys Dysfunction*. I, II. 5 Hr. PR: NSG 61 or consent. COREQ: NSG 135. The focus is on the human response to physiological system dysfunction. The emphasis is on the professional nursing role in complex physiological health restoration.

133. *Seminar III: Professional Role Development*. I. 2 Hr. PR: NSG 43 or consent. Managing individual/family/ group systems. Focus on ethical decision making in health care situations.

135. *Nursing Interventions 3*. I, II. 5 Hr. PR: NSG 61 or consent; Conc: NSG 131. Advanced physiological assessment and independent nursing interventions that promote health restoration. Advanced collaborative nursing activities.

140. *Professional Role Transition*. I. 3 Hr. PR: WV R.N. licensure. The course focuses on concepts and principles of professional nursing inherent in the curriculum of the School of Nursing. Emphasis is placed on how these concepts and principles affect nursing role.

143. *Seminar VII: Professional Role Development*. II. 3 Hr PR: NSG 140. Seminar with emphasis on the role of the professional nurse within the multidisciplinary team. Focus is on decision making in life-span ethical dilemmas and on effective communication within the health care team.

151. *Psychosocial Dysfunction*. I, II. 2 Hr. PR: NSG 61 or consent; Conc: NSG 155. Human response to multiple system dysfunction; professionals role in complex psychosocial health restoration.

153. *Seminar IV: Professional Role Development*. II. 2 Hr. PR: NSG 133 or consent. Communication skills within the multidisciplinary team; collaborative roles and team dynamics.

155. *Nursing Interventions 4*. I, II. 5 Hr. PR: NSG 61 or consent. Advanced psychosocial assessment and independent nursing interventions to promote health restoration; advanced collaborative nursing activities.

156. *Alterations in Psychosocial Health*. I, II. 3 Hr. PR: PSYC 141 or consent, Conc: NSG 151, 155. Normal psychosocial functions change as a result of altered health; integration of developmental changes and preventive aspects of health.

190. *Teaching Practicum*. 1-3 Hr.

191. *Special Topics*. 1-3 Hr.

194. *Professional Field Experience*. 1-18 Hr.

195. *Seminar*. 1-3 Hr.

196. *Senior Thesis*. 1-3 Hr.

197. *Honors*. 1-3 Hr.

199. *Writing in Nursing*. 1 Hr. Integration of the content learned in selected courses with writing about important topics; must be taken concurrently with an approved professional nursing role seminar.

221. *System Responses to Physiological Dysfunction*. I, II. 3 Hr. PR: Senior standing in NSG or consent. Coreq: NSG 225. Emphasis on professional nursing role in supporting individual/family/group responses to acute life threatening situations involving vulnerable populations; focus is on nursing role in providing care to unstable, individuals/families/groups.

223. *Seminar 5: Professional Role Development*. I, II. 2 Hr PR: NSG 153 or consent. The professional's role in creating and managing the health care milieu; focus is on the nurse manager role and interventions in support of the client/family experiencing acute or long-term health problems.

225. *Nursing Interventions 5*. I, II. 6 Hr. PR: Senior standing in nursing or consent. Coreq: NSG 221. Professional nursing role in supporting human responses to acute, life-threatening situations involving identified vulnerable populations; focus is on therapeutic nursing interventions specific to aid human responses of individuals with physiologic instability and their families.

233. *Seminar VIII: Professional Role Synthesis*. I. 3 Hr. PR: NSG 143. Emphasis is on implementation of the professional nursing role within a changing health care system. Focuses on analysis of societal, institutional, and economic factors that affect the delivery of health care.

241. *Community Response to Health Promotion*. I, II. 3 Hr. PR: Senior standing in nursing or consent. Coreq: NSG 245. Community health nursing processes with emphasis on the professional nursing role in the assessment of community health needs and identification of health action potential.

243. *Seminar 6: Professional Role Development*. I, II. 2 Hr PR: NSG 223 or consent. Emphasis on professional nursing role in health promotion and discuss prevention in groups/communities of vulnerable populations. Focuses on multidisciplinary team approaches to problem solving in community health.

245. *Nursing Interventions 6*. I, II. 6 Hr. PR: Senior standing in nursing or consent. Emphasis on the collaborative role of the nurse in assisting communities to develop and implement plans for health promotion/risk reduction across the life span. Focus is on vulnerable populations.

276. *Introduction to Nursing Research*. I, II, S. 3 Hr. PR: STAT 101 or consent. Theory, concepts and methods of the research process intended to provide a basic understanding that is necessary for intelligent consumership of research findings.

291. *A-Z Special Topics*. I, II, S. 1-6 Hr. Investigation of topics not covered in regularly scheduled courses.

322. *Theory and Critical Analysis*. I. 3. Introduction to the theoretical foundations of the discipline of nursing as a basis for applying critical thinking skills to the development of a conceptual framework for nursing.

324. *Research, Evaluation and Analysis*. II. 5 Hr. PR: NSG 322. An overview of research, measurement, and evaluation models useful to nursing practice.

326. *Health Policy: Issues and Ethics*. II. 3 Hr. PR: NSG 322 or consent. A focus on the social, political, technological, ethical, and economical dynamics that shape health care delivery.

328. *Advanced Pathophysiology*. I. 4 Hr. Theoretical basis of pathophysiological changes in acute and chronic illness across the lifespan. This course lays the foundation for subsequent courses in diagnosis management and therapeutic interventions.

330. *Health Promotion for All Ages*. II. 2 Hr. Exploration of the theoretical foundations of health promotion, prevention of illness, and maintenance of function across the Life-span applicable to the advanced practice of nursing.

332. *Concepts of Advanced Nursing*. I. 2 Hr. PR: NSG 322. Exploration and evaluation of theories and research in leadership, education, organization, and management concepts applicable in the advanced practice of nursing.

333. *Family, Community, Rural Health Systems*. S. 2 Hr. PR: NSG 322. Exploration and analysis of theories and research on family, community, and rural health systems applicable in the advanced practice of nursing.

336. *Clinical Diagnosis Across the Lifespan*. I, S. 3 Hr. PR: NSG 322. Introduction to the knowledge and skills basic to the assessment of health status, diagnosis, treatment, and evaluation in the advanced practice of nursing.

340. *Specialty Course Women's Health*. I. 4 Hr. PR: NSG 336. Application of the theoretical foundations of advanced practice nursing in the care of women in rural settings; management of care for prevention, intervention, and evaluation.

341. *Women's Health Practicum 1*. I. 5 Hr. PR or CONC: NSG 340. Implementation of theory-based nursing practice with women in rural community system; student development of advanced practice role in managing, consulting, and caring for women.

342. *Women's Health Practicum 2*. II, S. 5 Hr. PR: NSG 341. Supervised clinical experience under the direction of an advanced practice nurse faculty in the delivery of primary health care to women in rural areas.

350. *Specialty Course: Child Health*. I. 4 Hr. PR: NSG 336. Application of the theoretical foundations of advanced practice nursing in child health; management of care for prevention, intervention, and evaluation.

351. *Child Health Practicum 1*. I. 5 Hr. PR or CONC: NSG 350. Implementation of theory-based nursing practice with children in rural community systems; student's development in the advanced practice role in managing, consulting, and caring for children.

352. *Child Health Practicum 2*. II. 5 Hr. PR: NSG 351. Supervised clinical experience under the direction of an advanced practice nurse faculty in the delivery of primary health care to children in rural areas.

373. *Research Process and Methods in Nursing*. II. 3 Hr. PR: NSG 370. PR or Conc: Graduate-level statistics. Emphasizes understanding and critiques of research applicable to nursing. Theoretical rationale and appropriate methods to address research questions pertaining to health promotion with focal populations are targeted.

375. *Education Practicum*. I, II. 6 Hr. PR: NSG 336, specialty practicum 1 in area of interest. Supervised practice in the application of theories and methods related to nursing education.

376. *Health Policy*. II. S. 3 Hr. PR: NSG 370. Focus is on social, political, technological, ethical and economic dynamics which shape the formal and information systems of health care delivery. Impact of social policy on rural environments, nursing practice, and health promotion is emphasized.

380. *Specialty Course: Rural Family Health*. I. 4 Hr. PR: NSG 336. Application of the theoretical foundations of advanced practice nursing in rural family health care; management of care for prevention, intervention, and evaluation.

381. *Rural Family Health Practicum 1*. I. 5 Hr. PR or CONC: NSG 380. Implementation of theory based advanced nursing practice with individuals, families, and groups in the rural community systems; student development of the advanced practice role in managing, consulting, and caring for families.

382. *Rural Family Health: Practicum 2*. II, S. 5 Hr. PR: NSG 381. Supervised clinical experience under the direction of an advanced practice nurse faculty in the delivery of primary health care to individuals, families, and groups in rural areas.

391. *A-Z Advanced Topics*. I, II, S. 1-6 Hr. PR: Graduate standing; consent. In-depth study of topics related to current issues in primary health care. Study may be independent or through specially scheduled seminars.

397. *Research*. I, II, S. 1-15 Hr. PR: NSG 373 and PR or CONC: NSG 378. Refinement and implementation of research proposal to meet requirements for a master's paper.

491. *Advanced Study*. I, II, S. 1-3 Hr. PR: Consent. Post master's standing. Investigation in advanced subjects which are not covered in regularly scheduled courses. Study may be independent or through specially scheduled lectures.

492. *Directed Study*. 1-6 Hr.

493. *Special Topics*. 1-6 Hr.

494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.

496. *Graduate Seminar*. 1 Hr.

497. *Research*. I, II, S. 1-15 Hr. PR: Consent. Post master's standing.

498. *Thesis*. 2-4 Hr.

499. *Graduate Colloquium*. 1-6 Hr.

School of Pharmacy

Professional and Graduate Courses

Pharmacy (PHAR)

216. *Hospital Pharmacy and Administration*. I. 3 Hr. PR: Enrollment in the School of Pharmacy and consent. Basic concepts of the organization, management, and services of hospitals and pharmacist's role in the modern hospital. Emphasis on principles of hospital pharmacy administration and practice.

249. *Drugs and Medicines*. I. 3 Hr. (Not intended for pharmacy students.) PR: General biology or consent. A course intended to introduce the non-health professional student to information about drugs and pharmaceutical preparations to include their source, administration, action, use, and abuse.

256. *Advanced Pharmacotherapeutics*. I. 3 Hr. PR: PHAR 246 or equiv., and consent. The integration of pharmacological-therapeutic concepts in the study of treatment modalities and problems which may be encountered by the pharmacist in drug management of selected disease states.

276. *Pharmaceutical Quality Control*. II. 3 Hr. PR: Second-year standing in pharmacy. Basic scientific principles in quality control of drugs and dosage forms, with particular attention to newer analytical techniques.

283. *History of Pharmacy*. I or II. 2 Hr. Gives the student a deeper appreciation of the background of pharmacy and its development from ancient times to present.

287. A-Z. *Seminar in Pharmaceutical Sciences*. I, II. 1-3 Hr. PR: Consent. Presentation and discussion of special topics in pharmaceutical sciences. Clinical pharmacy.

289. A-Z. *Pharmaceutical Investigations*. I, II. 2-3 Hr. PR: Consent. Original investigation in pharmaceutics, medicinal chemistry, pharmacology, pharmacy administration, or clinical pharmacy.

290. A-Z. *Special Topics*. I, II. 2-4 Hr.

301. *Advanced Biopharmaceutics*. I or II. 3 Hr. Concepts of biopharmaceutics and pharmacokinetics in relation to the design and evaluation of dosage forms and determination of rational dosage regimens in health and disease.

302. *Advanced Pharmaceutics*. I or II. 3 Hr. Physicochemical and biopharmaceutical principles involved in disperse systems (liquid, semi-solid, and solid) which function as dosage forms. Considerations of properties of solid dispersions, micromeritics, diffusion of liquid dispersions, interfacial phenomena, emulsification, suspensions, prolonged action medication, etc.

303. *Pharmaceutical Care Lab 1*. 2 Hr. PR: First professional year standing or consent. Students will develop skills in medical terminology, communications, information retrieval, dispensing, compounding, calculations, and pharmaceutical care skills.

304. *Pharmaceutical Care Lab 2*. 2 Hr. PR: First professional year standing or consent. Continuation of PHAR 303.

310. *Practicum*. 1 Hr. PR: First professional year standing or consent. The course exposes students to a variety of pharmacy practice settings and patient care experiences. Students also receive training in first aid and cardiopulmonary resuscitation.

323. *Economics of the Pharmaceutical Industry*. I or II. 3 Hr. History, background, and formation of major drug industries. Oligopolistic practices, mergers, combines, costs of research, and production.

325. *Advanced Drug Information*. I. 2 Hr. PR: First year standing in Pharm.D. program or consent. Overview of drug information provision and management; in-depth knowledge of evaluation techniques for drug information literature.

326. *Disease Processes and Clinical Therapeutics 1*. I, II. 7 Hrs. PR: Admission to the Pharm.D. program or consent. Pharmacotherapeutics and therapeutic decision-making.

327. *Disease Processes and Clinical Therapeutics 2*. II. 7 Hr. PR: Admission to the Pharm.D. program or consent. Pharmacotherapeutic decision making; a continuation of PHAR 326.

328. *Monitor Paramtrs Med Pat*. 2 Hr.

329. *Advanced Clinical Pharmacokinetics*. II. 3 Hr. PR: Admission to the Pharm.D. program or consent. Emphasis on the interpretation and use of therapeutic drug concentrations in patient management.

330. *Drug Information Clerkship*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship; enhancement of knowledge and skill in drug information retrieval and dissemination and as pharma-cotherapy consultants.

331. *Internal Medicine Clerkship*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship; emphasis on selection, utilization, and monitoring of drug therapy patient and health care practitioner interactions.

332. *Family Medicine Clerkship*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship providing intensive experience in clinical pharmacy services to inpatients and ambulatory patients of a family practice center.

333. *Ambulatory Care Clerkship*. 2 Hr.

335. *Rheumatology Clerkship*. 2 Hr.

336. *Pharmacokinetics Clerkship*. 2 Hr.

337. *Poison Information and Management Clerkship*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship in clinical toxicology; assessment and treatment of the poisoning victim.

338. *Infectious Diseases Clerkship*. 2 Hr.

339. *Adult Medicine Specialty Clerkship*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship, emphasis on selection, utilization, and monitoring of drug therapy: patient and health care practitioner interactions.

340. *Pediatrics Clerkship*. I, II, S. 4 Hr. Second year standing in Pharm.D. program or consent. Advanced clerkship in pediatrics with emphasis on appropriate selection, utilization and monitoring of drug therapy and patient and health care practitioner interaction.

341. *Behavioral Medicine/Psychiatry Clerkship*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship; emphasis on selection, utilization and monitoring of drug therapy; patient and health care practitioner interactions.

342. *Geriatrics Clerkship*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship, emphasis on selection, utilization, and monitoring of drug therapy; patient and health care practitioner interactions.
343. *Hospital Pharmacy Administration Clerkship*. I, II, S. 4 Hr. PR: For pharmacy students and a limited number of regular, full-time graduate students in biomedical sciences. Second-year professional standing or consent. Cellular and bio-chemical effects that explain the therapeutic or adverse effects of drugs. These will be integrated into considerations of drug effects, toxicity's, and interactions between drugs.
344. *Preceptorship Clerkship*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship preceptor to undergraduate pharmacy students in a clinical rotation.
345. *Elective Clerkship 1*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.
346. *Elective Clerkship 2*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.
347. *Elective Clerkship 3*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.
348. *Elective Clerkship 4*. I, II, S. 4 Hr. PR: Second year standing in Pharm.D. program or consent. Advanced clerkship in an area of clinical pharmacy practice or administration.
351. *Physical Pharmacy*. 3 Hr. PR: First professional year standing or consent. Physical pharmacy is designed to teach students the basic principles related to physical phenomena and stability as well as introduce them to a variety of factors that influence drug dosage form design and stability.
352. *Pharmacy Law/Ethics*. PR: First professional year standing or consent. The legal and ethical basis of pharmacy practice. Students learn about federal and state statutes, rules, and regulations that affect pharmacy practice. Ethics related situations that can arise during pharmacy practice will also be discussed.
353. *Pharmacy as a Profession*. 3 Hr. PR: First professional year standing or consent. The course introduces students to the concept of professionalism, the scope of pharmacy practice opportunities, the health care system as it relates to pharmacy, and other contemporary issues in pharmacy practice.
354. *Pharmaceutics*. 3 Hr. Pharmaceutics builds upon the concepts discussed in physical pharmacy and focuses on drug dosage forms and delivery systems, their design, drug delivery to the body through a variety of routes, and factors affecting drug delivery.
356. *Immunology, Biotechnology, and Anti-infectives*. 3 Hr. PR: First professional year standing or consent. Integration of immunology, biotechnology, and anti-infective. Students will learn basic functions of the immune system, elements of the pharmaceutical applications of biotechnology, and be introduced to the chemotherapy of infections.
358. *Chemical Properties of Drugs*. 1 Hr. PR: First professional year standing or consent. An introduction to principles of chemical stability and chemical properties as they relate to drug molecules. Topics to be covered include functional group analysis, solubility, oil/water partitioning, organic acids and bases, and drug decomposition.
361. *Pathophysiology/Therapeutics 1*. 4 Hr. PR: Second professional year standing or consent. Principles and concepts of pathophysiology and pharmacotherapeutics. An organ system approach to disease states and their therapeutic management will be followed.
363. *Chemistry of Drug Action 1*. 3 Hr. PR: Second professional year standing or consent. Chemistry of drug action 1 provides a basic understanding of relationships between the chemical structure of a drug and its biological effect. Physicochemical properties, enzymatic transformations and structure-activity relationships (SAR) of important pharmaceutical agents are discussed.

365. *Patient Health Education*. 2 Hr. PR: Second professional year standing or consent. Interpersonal communication skills will be enhanced in the areas of patient-centered and colleague-centered communications. Students will learn processes for providing pharmaceutical care (e.g., interviewing and counseling patients; formulating a plan; monitoring; and documenting information).

371. *Pathophysiology/Therapeutics* 3. 5 Hr. PR: Third professional year standing or consent. Principles and concepts of pathophysiology and pharmacotherapeutics. An organ system approach to disease states and their therapeutic management will be followed.

373. *Biopharm and Pharmacokinetics*. 3 Hr. PR: Third-year professional standing or consent. Fundamental principles of biopharmaceutics (physicochemical and biological processes affecting drug transit into the systemic circulation) and pharmacokinetics (kinetic and biological processes a drug undergoes upon entering the body).

375. *Advanced Pharmaceutical Analysis* 1. I or II. 3 Hr. Spectroscopic and chromatographic methods of analysis with emphasis on their applications in pharmaceutical problems and in biological sciences.

379. *Non-Prescription Drugs*. 3 Hr. PR: Third-year professional standing or consent. An advanced level course on the appropriate selection, and use of non-prescription drug products in the contemporary practice setting, the basis for self-medication, assessment of patient condition, and approach to patient counseling.

381. *Pharmacy Systems*. 2 Hr. PR: Third-year professional standing or consent. Basic principles of financial management. As they apply to the day to day operations in pharmacy systems present in institutional, community, long-term care facilities and other pharmacy venues.

390. A-Z. *Special Topics*. I, II, S. 1-4 Hr.

391. A-Z. *Advanced Topics*. 1-6 Hr.

395. *Clinical Investigation*. 1 Hr. PR: First year standing in Pharm.D. program or consent. This course is designed to develop knowledge and skills useful for clinical problem identification, research design and protocol development, data analysis, problem resolution, regulatory issues concerning the use of human subjects, preparation of written reports, and verbal presentation of findings.

396. *Special Problems in Pharmaceutical Sciences*. I, II. S. 1-3 Hr. Where special interest is shown by the student in an area other than of the student's thesis research, a faculty member will supervise individual study and research.

397. *Research*. 1-15 Hr.

484. A-Z. *Special Seminar*. I, II, S. 1-6 Hr. For use by disciplines in the pharmaceutical sciences wishing to have graduate students and faculty participate in seminars and group discussions on specialized or technical topics at the advanced level.

492. *Directed Study*. 1-6 Hr.

493. *Special Topics*. 1-6 Hr.

494. *Special Seminars*. 1-6 Hr.

495. *Independent Study*. 1-6 Hr.

496. *Graduate Seminar*. I, II. 1 Hr. PR: Consent. Formal presentation by graduate students to assembled graduate faculty and students of research or special topics approved by advisor. Title to be presented at start of semester. Required at least once annually. (Grading is S/U.)

497. *Research*. I, II. 1-15 Hr.

498. *Thesis*. I, II, S. 2-4 Hr. PR: Consent.

499. *Graduate Colloquium*. 1-6 Hr.

Health Sciences Center

Staff

Timothy J. Palencik, Associate Vice President, UHA.
Ann Chester, Ph.D., Assistant Vice President.
John T. Coughlin, Director of Communications.
Daniel Durbin, Director, Budget and Financial Operations—HSC.
Harold H. Harper, M.S., Special Assistant to the Vice President.
Darold E. Blehschmidt, Assistant to the Vice President.
Gary B. Miller, Director, Maintenance Engineering.
Terry Burton, Interim Director, Health Sciences Library.
Laura Roth, Director, Information Systems Operations.
Floyd Russell, Director, Academic Technologies.

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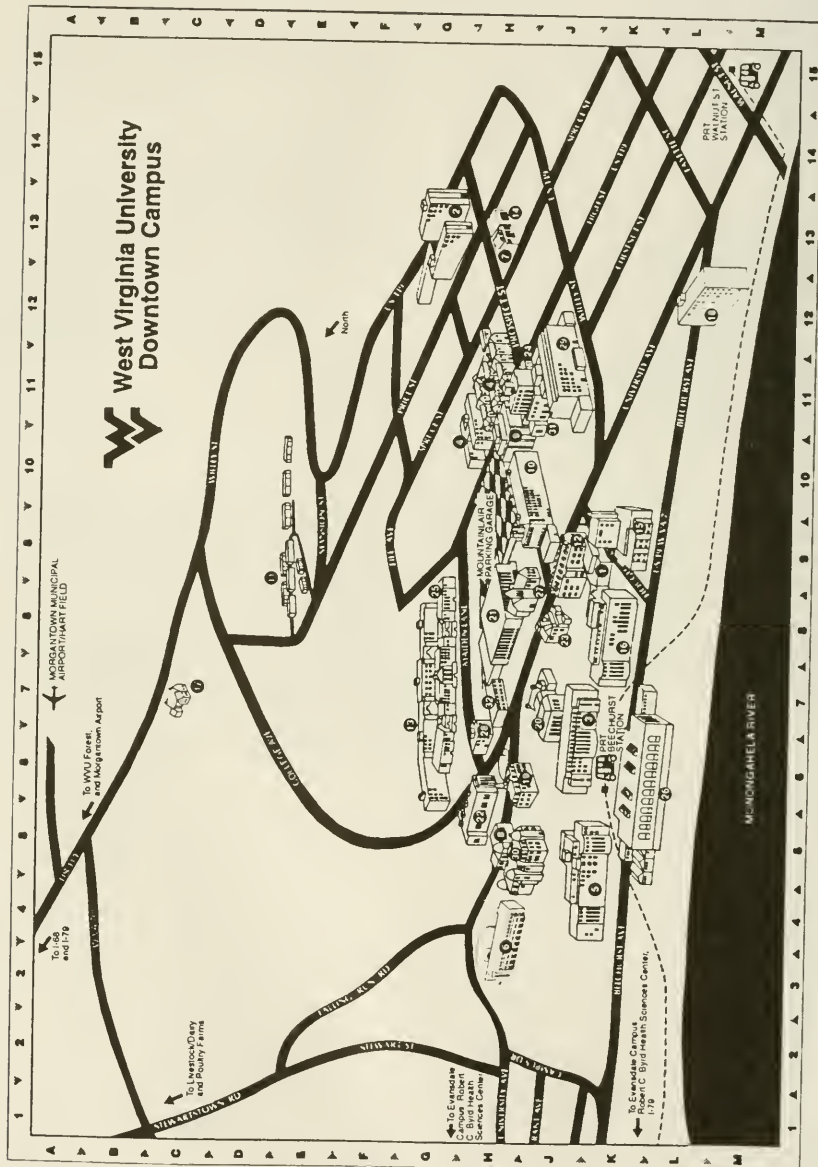
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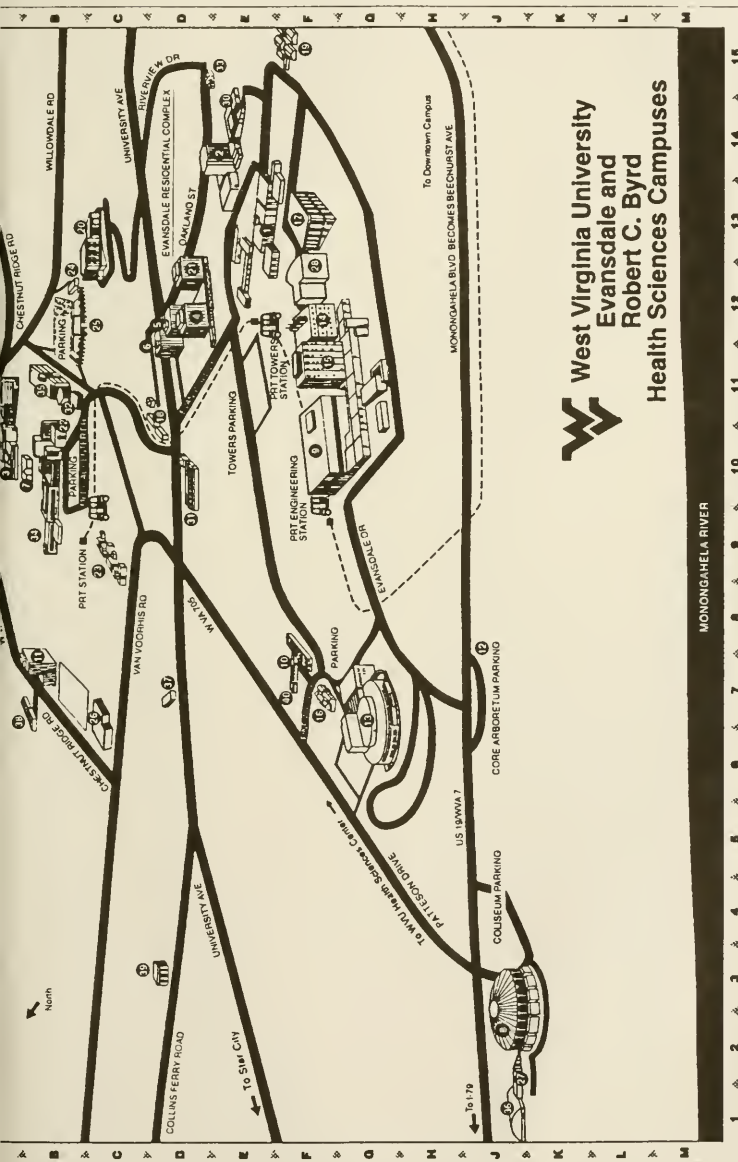
Downtown Campus Alphabetical Listing of Buildings

Site Number	Building	Location
1	Admissions and Records	J-9
2	Arnold Hall	G-13
3	Armstrong Hall	J-6
4	Boreman Hall	H-11
5	Brooke Hall	J-4
6	Business and Economics	H-4
7	Center for Black Culture and Research	H-13
8	Chitwood Hall	H-5
9	Chemistry Research	H-11
10	Clark Hall	H-10
11	College Park Apartments	E-9
12	Colson Hall	J-9
13	Dadisman Hall	G-7
14	Daily Athenaeum	H-13
15	Eiseland Hall	K-9
16	Hodges Hall	K-8
17	Institute for History of Technology and Industrial Archaeology	C-7
18	Knapp Hall	L-12
19	Martin Hall	H-6
20	Elizabeth Moore Hall	J-7
21	Mountainlair	H-8
22	Oglebay Hall	H-5
23	Purinton House	J-8
24	Regional Research Institute	H-11
25	Stahaker Hall	G-8
26	Siansbury Hall	K-6
27	Stewart Hall	H-8
28	Student Services Center	H-6
29	White Hall	J-11
30	Woodburn Hall	H-5



Alphabetical Listing of Buildings

Site Number	Building	Location
1	College of Agriculture, Forestry and Consumer Sciences	F-13
2	Allen Hall	E-13
3	ALOSH	A-10
4	Bennett Tower	D-12
5	Braxton Tower	C-12
6	Brooke Tower	C-11
7	Chestnut Ridge Hospital	A-10
8	Mineral Resources Building	J-2
9	Communications Building	G-11
10	Concurrent Engineering	F-7
11	Research Center	B-7
12	Core Arboretum	J-7
13	Creative Arts Center	G-6
14	Engineering Research	F-12
15	Engineering Sciences Building	F-11
16	Erickson Alumni Center	F-7
17	Evansdale Library	F-13
18	Faculty Housing	C-11
19	Greenhouses	F-15
20	College of Law	B-13
21	Lyon Tower	D-12
22	Mary Babb Randolph Cancer Center	B-10
23	Medical Center Apartments	C-9
24	Milan Puskar Facilities Center	B-10
25	Mountaineer Field	B-12
26	Mountainview Rehabilitation Hospital	B-6
27	Nataletorium	J-2
28	National Research Center For Coal and Energy	F-12
29	NIOSH	A-11
30	Perichal Hall	E-14
31	Physical Plant	D-10
32	Physician Office Center	B-11
33	President's House	D-15
34	Robert C. Byrd Health Sciences Center	B-9
35	Ruby Memorial Hospital	B-11
36	Shell Building	J-1
37	University Services Center	D-7
38	WV Network for Educational Telecomputing	A-7
39	WVJ Foundation	C-3
40	WVU Visitors Center	F-7



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